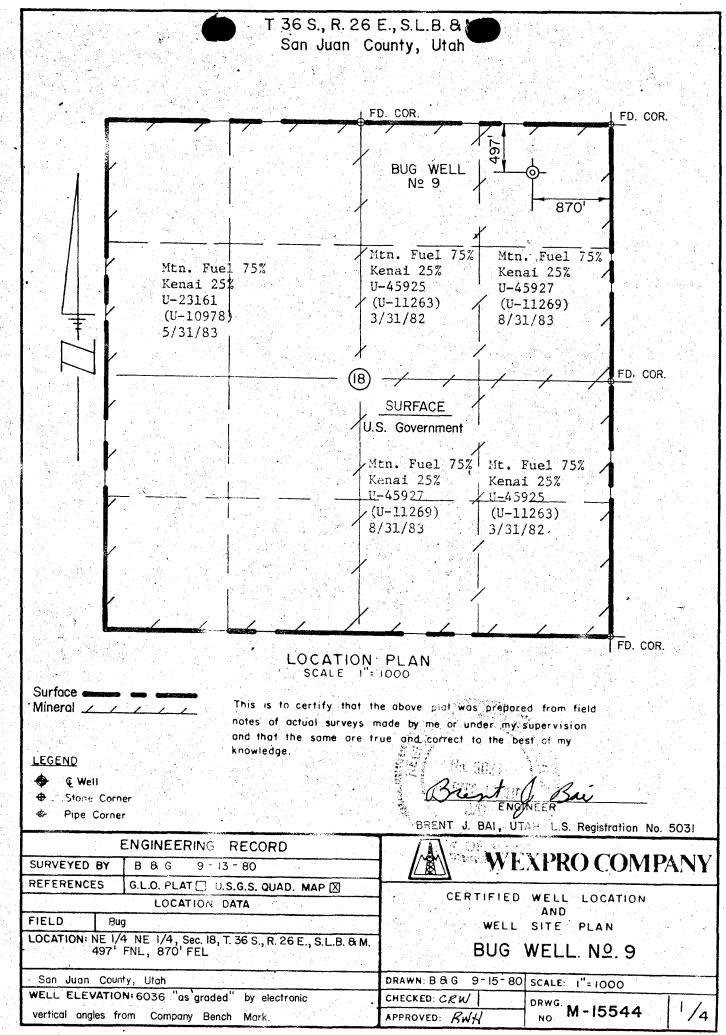
STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING



5. Lease Designation and Serial No.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK Type of Work DRILL EX DEEPEN DEEPEN DILL BACK DEEPEN DILL BACK DILL BA	Lease Name Colsectificat Spment R. M. or Bik. ey or Area T. 36S., R. 26E. r Parrish 13. State uan Utah
DRILL EXX DEEPEN DEEPEN DEEPEN DILUG BACK T. Unit Agree Well Olther Single Zone Multiple Zone Bug. Name of Operator Wexpro Company Address of Operator P.O. Box 1129, Rock Springs, Wyoming 82901 Location of Well (Report location clearly and in accordance with any State requirements.*) At surface NE 1/4 NE 1/4 Section 18, T.36S., R.26E., 497 FNL At proposed prod. zone 870' FEL Distance in miles and direction from nearest town or post office* 15 miles northeast to Dove Creek Distance from proposed location to nearest property or lease line, ft. (Also to nearest urle, line, if any) Distance from proposed location* May No. 2 Bug TD 19 Proposed depth to nearest well, drilling, completed, or applied for, on this lease, ft. 3900' NE SW S.7, T.36S., 5790' Rotary	Lease Name Colsectificat Spment R. M. or Bik. ey or Area T. 36S., R. 26E. r Parrish 13. State uan Utah
DRILL RX DEFPEN DEFPEN PIUG BACK Single	Lease Name Colsectificat Spment R. M. or Bik. ey or Area T. 36S., R. 26E. r Parrish 13. State uan Utah
Other Single Zone Multiple Bug. Name of Operator Wexpro Company Address of Operator P.O. Box 1129, Rock Springs, Wyoming 82901 Location of Well (Report location clearly and in accordance with any State requirements.*) At surface NE 1/4 NE 1/4 Section 18, T.36S., R.26E., 497 FNL Distance in miles and direction from nearest town or post office* 12. County of 15 miles northeast to Dove Creek Distance from proposed* Location to nearest property or lease line. ft. (Also to nearest crit. line. if any) Distance from proposed location* At 90 In 19. Proposed depth or applied for, on this lease. ft. 3900' NE SW S.7, T.36S., 5790' Rotary	T.36S., R.26E. r Parrish 13. State
Wexpro Company Address of Operator P.O. Box 1129, Rock Springs, Wyoming 82901 Location of Well (Report location clearly and in accordance with any State requirements.*) NE 1/4 NE 1/4 Section 18, T.36S., R.26E., 497 FNL At proposed prod. zone 870 FEL Distance in miles and direction from nearest town or post office* 15 miles northeast to Dove Creek Distance from proposed location to nearest property or lease line. ft. (Also to nearest well, drilling, completed, or applied for, on this lease. ft. 3900' NE SW S.7, T.36S., 5790' Rotary 9. Well No. 9. Well No. 10. Field and Devel 11. Sec., T. and Surve 12. County or 13. No. of acres assign to this well 14. No. of acres assign to this well 20. Rotary or cable tool Rotary Rotary	T.36S., R.26E. r Parrish 13. State uan Utah
Middress of Operator P.O. Box 1129, Rock Springs, Wyoming 82901 Location of Well (Report location clearly and in accordance with any State requirements.*) NE 1/4 NE 1/4 Section 18, T.36S., R.26E., 497 FNL At proposed prod. zone 870 FEL Distance in miles and direction from nearest town or post office* 15 miles northeast to Dove Creek Distance from proposed* location to nearest property or lease line, ft. (Also to nearest urb., line, if any) Distance from proposed location* May No. 2 Bug TD Distance from proposed location* May No. 2 Bug TD Proposed depth to nearest well, drilling, completed, or applied for, on this lease, ft. 3900' NE SW S.7, T.36S., 5790' Rotary	T.36S., R.26E. r Parrish 13. State uan Utah
Distance from proposed location to nearest town or post office. 15 miles northeast to Dove Creek Distance from proposed location to nearest town or post office. 16. No. of acres in lease rothis well continuous means to this well property or lease line. ft. (Also to nearest well, drilling, completed, or applied for, on this lease, ft. 3900' NE SW S.7, T.36S., 5790' NE 1/4 NE 1/4 Section 18, T.36S., R.26E., 497' FNL 11. Sec., T., and Survey S.18, 12. County of 12. County of 12. County of 13. No. of acres in lease to this well of 14. No. of acres assign to this well of 15. No. of acres assign to this well of 15. No. of acres acres acres well, drilling, completed, or applied for, on this lease, ft. 3900' NE SW S.7, T.36S., 5790' Rotary or cable tool.	T.36S., R.26E. r Parrish 13. State uan Utah
NE 1/4 NE 1/4 Section 18, T.36S., R.26E., 497' FNL At proposed prod. zone 870' FEL Distance in miles and direction from nearest town or post office* 12. County of the section proposed section to nearest property or lease line. ft. (Also to nearest drive, line, if any) Distance from proposed sociation May No. 2 Bug TD Distance from proposed sociation May No. 2 Bug TD Proposed depth to nearest well, drilling, completed, or applied for, on this lease, ft. 3900' NE SW S.7, T.36S., 5790' Rotary	T.36S., R.26E. r Parrish 13. State uan Utah
Distance in miles and direction from nearest town or post office* 12. County of 15. miles northeast to Dove Creek Distance from proposed location to nearest property or lease line, it. (Also to nearest urb., line, if any) Distance from proposed location* May No. 2 Bug TD 19. Proposed depth to nearest well, drilling, completed, or applied for, on this lease, it. 3900' NE SW S.7, T.36S., 5790' Rotary	r Parrish 13. State uan Utah
Distance from proposed location to nearest triposed location to nearest well, drilling, completed, or applied for, on this lease, ft. 3900' NE SW S.7, T.36S., 5790' San J San J 16. No. of acres in lease 17. No. of acres assign to this well 17. No. of acres assign to this well 18. No. of acres assign to this well 19. Proposed depth 20. Rotary or cable tool. 20. Rotary or cable tool. 21. Rotary or cable tool. 22. Rotary or cable tool.	uan Utah
Distance from proposed location to nearest property or lease line, ft. (Also to nearest driv. line, if any) Distance from proposed location May No. 2 Bug TD 19. Proposed depth to nearest well, drilling, completed, or applied for, on this lease, it. 3900' NE SW S.7, T.36S., 5790' Rotary	
location to nearest property or lease line. ft. (Also to nearest urbr. line, if any) Distance from proposed location. May No. 2 Bug TD 19. Proposed depth to nearest well, drilling, completed, or applied for, on this lease, ft. 3900' NE SW S.7, T.36S., 5790' Rotary	ed
Distance from proposed location* May No. 2 Bug TD 19. Proposed depth to nearest well, drilling, completed, or applied for, on this lease, it. 3900' NE SW S.7, T. 36S., 5790' Rotary or cable tool.	
Lievations (Snow whether Dr. Rr. GR. etc.) R. ZOE.	
GR 6000'	date work will start* on approval
PROPOSED CASING AND CEMENTING PROGRAM	
	y of Cement
12-1/4" 9-5/8" 36# 1420' 650 Sks. Reg. "G	
8-3/4" $5-1/2$ " $17#$ 5790' To be determined	from caliper 1
Wexpro Company proposes to drill the subject well to a total depth of Request administrative approval for an exception well location due to THE DIVISION ON THE DIVISION OF TH	topography.
ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive stive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true eventer program, if any. Signed. Division Engineer Of This space for Federal or State office uses	
Permit No. Approval Date	
Activity Policy Control of the Contr	
	ıte



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TO THE PERSON NAMED AND ADDRESS OF THE PERSON NAMED AND ADDRES

DEVELOPMENT PLAN FOR U.S.G.S. APPROVAL OF SURFACE USE WEXPRO DRILLING WELLS

Well	Name	e:	Bug Well	No	9			
Field	or	Area:	Bug - S	an	Juan	County,	Utah	

Existing Roads:

- A) Proposed well site as staked: Refer to well location plat no. M- 15544, well pad layout map no. M-15545 and area map no. M-15548 for location of well, access road, cuts and fills, directional reference stakes, etc.
- Route and distance from nearest town or locatable reference point to where well access route leaves main road: Refer to area map no. M- 155 From the well to Dove Creek, Colorado, is approximately 15 miles northeast.
- C) Access road to location: Refer to well location plat no. M_{\odot}^{-15544} and area map no. M-15548 for access road. (Color coded red for existing road and blue for road to be constructed.
- D) If exploratory well, all existing roads within a 3-mile radius of well site: Not an exploratory well.
- E) If development well, all existing roads within a 1-mile radius: See area map M-15548
- F) Plans for improvement and/or maintenance of existing roads: No improvements are planned. Maintenance will be performed as necessary to allow safe vehicle passage.
- Planned Access Road:
 A) Width -20 wide from shoulder to shoulder.
 - B) Maximum grade The maximum grade on the road is 8 percent.
 - C) Turnouts No turnouts will be constructed.
 - D) Drainage design A drainage ditch on the uphill side of the road will be constructed. It will be a minimum of one foot below the surface of the road. No water diversion ditches are anticipated.
 - Location and size of culverts and description of major cuts and fills -1) 7 major culverts will be necessary across the various drainages in the area. This will be 20" diameter, larger if necessary.
 - 2) Some major cuts and fill will be necessary due to steep topography for the road and well pad.
 - F) Surfacing material None anticipated.
 - G) Necessary gates, cattle guards or fence cuts -
 - H) New or reconstructed roads - The new road to be constructed is center line flagged.
- Location of Existing Wells Refer to area map no. M-15548 A) Water wells - Bug Well No. 3 (NW 1/4 Section 7, T.36S., R.26E.) is a dry hole and is being considered for use as a water well.

- B) Abandoned wells None within the area.
- C) Temporarily abandoned wells None within the area.
- D) Disposal wells None within the area.
- E) <u>Drilling wells</u> None within the area.
- F) Producing wells Bug Well No. 1, Section 12, T.36S., R.26E. Bug Well No. 4, Section 16, T.36S., R.26E. May No. 2 Bug, Section 7, T.36S., R.26E.
- G) Shut-in wells None within the area.
- H) <u>Injection wells</u> None within the area.
- I) Monitoring or observation wells for other resources None within the area.
- 4. Location of Existing and/or Proposed Facilities Refer to area map no. M-15548

 A) 1) Tank Batteries None.
 - 2) Production Facilities Planned production facilities at site of Bug Well No. 3 and north of Bug Well No. 4.
 - 3) Oil Gathering Lines In planning stage.
 - 4) Gas Gathering Lines In planning stage.
 - 5) <u>Injection Lines</u> In planning stage.
 - 6) Disposal Lines In planning stage.
 - B) 1) Proposed location and attendent lines by flagging if off the well pad If this well is productive, application for right-of-way will be made at that time
 and will likely follow the access road route.
 - 2) Dimensions of facilities Refer to Map M-15545.
 - 3) Construction methods and materials The on-location pipelines will be buried approximately 30". If the well is productive, a central processing site will be established to handle this well and any other productive wells in the area.
 - 4) Protective measures and devices to protect livestock and wildlife All sump pits will be fenced. The fence shall be woven wire at least 48-inches high and within 4-inches of the ground. If oil is in the sump pit, the pit will be overhead flagged to keep birds out.

- C) Plans for rehabilitation of disturbed area no longer needed for operations after construction is completed Areas of none use will be restored and reseeded as recommended by the B.L.M.
- 5. Location and Type of Water Supply -
 - A) Location of Water The Roy Gilbreth water pond in Section 5, T.36S, R.26E.
 - B) Method of Transporting Water To be hauled by tank trucks over existing and proposed access roads.
 - C) Water Well to be Drilled on Lease None to be drilled.
- 6. Source of Construction Material None anticipated.
 - A) Information None
 - B) Identify if from Federal or Indian land None
 - C) Where materials are to be obtained and used None
 - D) Access roads crossing Federal or Indian lands As described above
- 7. Method for Handling Waste Disposal -
 - A-D) Cuttings and drilling fluids will be placed in the mud pit. Any produced liquids will be placed in test tanks and hauled out by tank trucks. A chemical toilet will be installed on the well pad. The mud pit shall be constructed with at least 1/2 of its holding capacity below ground level. It shall be fenced as described in Section 10-A.
 - E) Garbage and other waste material will be placed in the burn pit and covered over with wire mesh to contain the garbage.
 - F) After drilling operations have been completed, the location will be cleared of litter, and the trash will be burned in the burn pit. The burn pit will be covered over. The mud pit liquids will be allowed to evaporate. Any fill material on the mud pit will be compacted with heavy equipment.
- 8. Ancillary Facilities No camps or airstrips exist now, and Wexpro Company has no plans to build them.
- 9. Well Site Layout Refer to drawing no. M-15545
 - 1) Refer to drawing no. M-15546 for cross section of drill pad and mud pit with cuts and fills.
 - 2, 3) Refer to the location plat for location of mud tanks, reserve pit, burn pit, pipe racks, living facilities, soil material stockpile, rig orientation, parking areas and access roads.
 - 4) The mud pit is to be unlined.
- 10. Plans for Restoration of Surface -
 - A) After drilling operations, the well site will be cleared and cleaned and the burn pit filled in. Should the well be a dry hole, the surface will be restored to the extent that it will blend in with the landscape. Prior to the onset of drilling, the mud pit shall be fenced on three sides. Immediately upon completion of drilling, the fourth side of the pit will be fenced. The fence will be maintained until restoration.
 - B) Revegetation and rehabilitation of the location and access road will be done to comply with Bureau of Land Management recommendations.
 - C) Prior to rig release, pits will be fenced and so maintained until clean up. The trash pit will be dug so when filled, the depth will be at least three-feet below the finished contour of the location.

- D) If oil is in the mud pit, overhead flagging will be installed to keep birds out.
- E) Clean up will begin within two months after drilling operations have been completed and the land will be restored at this time.

11. Other Information -

- A) The location is on a bench between Cedar Point and the bottom of Monument Canyon. The soil is sandy with large boulders in the area. Thick Juniper trees and various grasses cover the area.
- B) The location and access road are situated on Federal land.
- C) Monument Creek flows approximately 700 feet to the southeast of the location. No known archaeological, historical or cultural sites exist within the area to my knowledge.
- 12. Lessee's or Operator's Representative A. J. Maser, Drilling Superintendent, P. O. Box 1129, Rock Springs, Wyoming 82901, Telephone No. 307-362-5611.

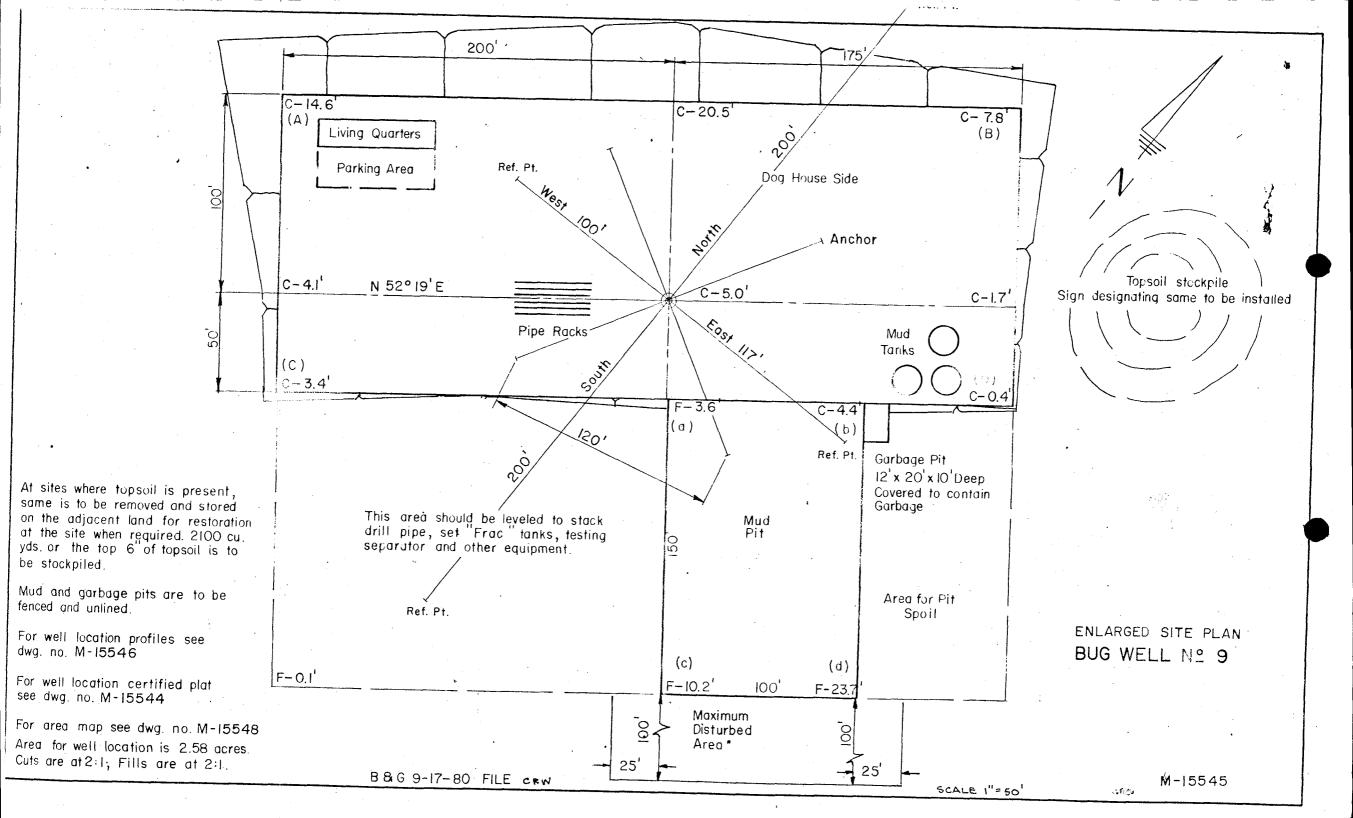
13. Certification -

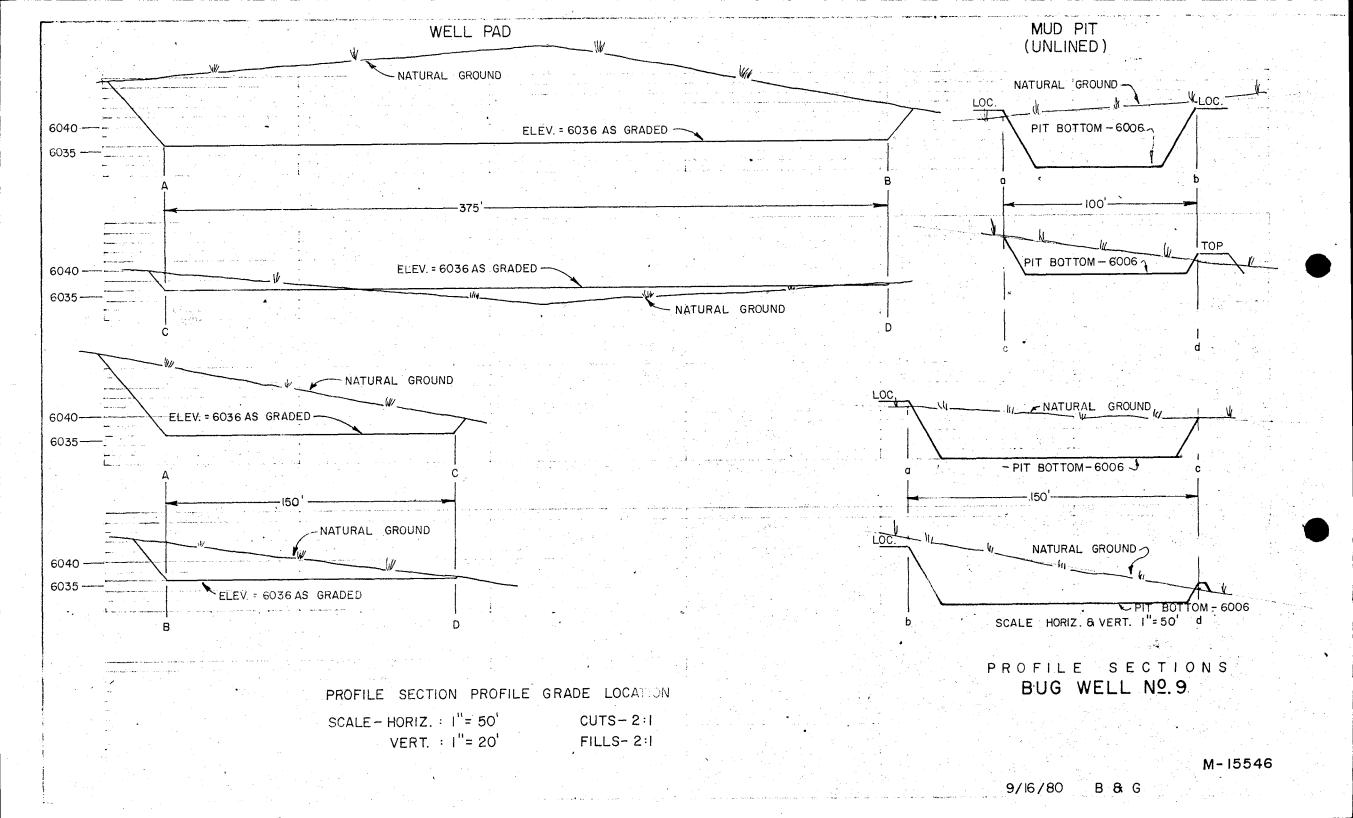
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Wexpro Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

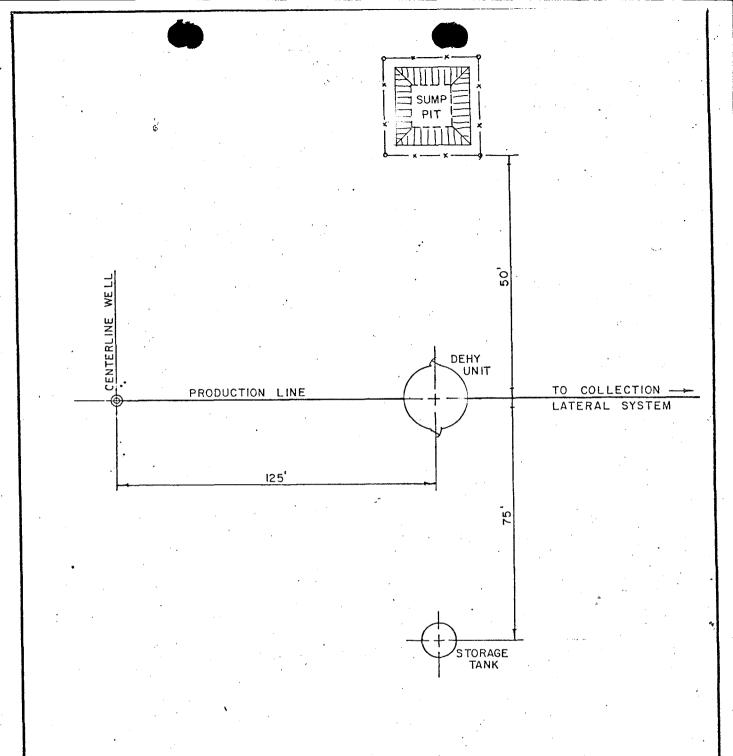
Date	10/2/80	Name	Cl. fr.	maser	
			A. J. Mas	er	
		Title <u>Dri</u>	lling Super:	intendent	

BUC WELL Nº 3 0 BUG WELL № 7 F=== TOU BUG WELL Nº 6655 — — — — Central Production Facilities BUG WELL Nº 13 BUG WELL Nº 15 SCALE SCALE UTAH-COLGRADO 16632 BUG WELL BUG WELL Nº BUG WELL Nº 4 Reservoir BUG WELL Nº 10 BUG WELL 6582 0 22 Reservoir

BUG BUG WELL AREA WELL FOR MAP LOCATIONS 9







REVISIONS				WEXPRO COMPANY		
NO.	DESCRIPTION	DATE	BY	3Y VY LIZAR HAO COLVIII		
				1		PRODUCTION
				FACILITIES LAYOUT FOR BUG WELL Nº 9		
_						
				DRAWN: 7/9/76	FJC	SCALE: NONE
				CHECKED:		DRWG. M-12205
				APPROVED: NO. IVI - 1220		NO. 1VI-12205

WEXPRO COMPANY BUG WELL NO. 9 LEASE NO.: U-45927 NE NE SECTION 18, T.36S., R.26E. SAN JUAN COUNTY, UTAH 10-Point Plan

- 1. The surface formation is Morrison.
- 2. Estimated tops of important geological markers are:

Morrision	Surface
Entrada	460'
Carme1	600 '
Navajo	650 '
Chinle	1345
Shinarump	2060'
Cutler	2320 '
Honaker Trail	4060 '
Paradox	4745 †
Upper Ismay	5240 '
Lower Upper Ismay	5405 '
(Base 2nd Shale)	
Lower Ismay Shale	5475 '
Lower Ismay Porosity	5585 †
"B" Zone	5600 '
Desert Creek	5650 '
Lower Bench	5695 '
Desert Creek Porosity	5700 '
Salt	5785 '
Total Depth:	5790 '

Objective Reservoir: Lower Upper Ismay, 5405'

Desert Creek Porosity, 5700'

Other Possible Producing Zones: Honaker Trail, 4060'

Lower Ismay Porosity, 5585'

3. Estimated depths of anticipated water, oil or gas or other mineral bearing formations expected to be encountered:

No water flows anticipated. Surface casing is designed to protect aquifer in the Navajo sandstone.

Oil or gas expected in Objective Reservoir -- Lower Upper Ismay, 5405'; Desert Creek Porosity, 5700'. Also, the Honaker Trail, 4060', and the Lower Ismay Porosity, 5585', may be productive.

No mineral bearing formations anticipated.

Wexpro Company
Bug Well No. 9
Lease No.: U-45927
NE NE S.18, T.36S., R.26E.
San Juan County, Utah
10-Point Plan

Page Two

4. Casing Program:

Proposed	<u>Fo</u>	Size	Grade	Weight	Condition	Thread
Surface	14 201	9-5/8"	K-55	36#	New	8rd ST&C
Production	57 901	5-1/2"	K-55	17#	New	8rd LT&C

Cement Program:

Surface: 940 sacks of Regular Type "G" cement plus 70% excess cement treated with 5% Dowell D-43A or 3% Calcium Chloride.

Production: Cement volumes and composition to be determined from caliper logs. Cement casing with 50-50 Pozmix "A" cement. Cement to be set 1000' above the uppermost producing zone.

- 5. Operator's minimum specifications for pressure control equipment requires a 10", 3000 psi annular preventer, and a 10", 3000 psi double gate blowout preventer from the surface to the total depth. See attached diagram. Blowout preventers will be tested by rig equipment after each string of casing is run. All ram-type preventers will have hand wheels installed and operative at the time the preventers are installed.
- 6. Fresh water with minimum properties from surface to total depth. Spud mud will be used for the surface hole. A mud de-sander will be used from under the surface casing to total depth to remove all undesirable solids from the mud system and to keep the mud weight to a minimum. The mud weight will be brought up to 11.7 ppg before drilling into the Desert Creek zone at 5650'. Mud weight will start to increase at 5500'.

A fully manned logging unit will be used from 3800' to total depth. The contractor will catch 10-foot samples from surface to 3800'.

Sufficient mud materials to maintain mud requirements and to control minor lost circulation and blowout problems will be stored at the well site.

7. Auxiliary equipment will consist of: (1) A manually operated kelly cock; (2) No floats at bit; (3) Mud will be monitored visually from 0' to total appth; and, (4) Full opening Shafer floor valve manually operated.

8.	Four drill stem tests:	1) Honaker Trail	4060
		Lower Upper Ismay	5405 '
		3) Lower Ismay Porosity	5585 '
		4) Desert Creek Porosity	5700 '

Cores: 60', Desert Creek Porosity, 5700'

Wexpro Company
Bug Well No. 9
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NE NE S.18, T.36S., R.26E.
San Juan County, Utah
10-Point Plan

Page Three

Mechanical Logs:

- 1. Dual Induction Lateralog from total depth to surface pipe.
- 2. Sidewall Neutron with caliper and Gamma Ray from total depth to surface pipe. Run Gamma Ray to surface.
- 3. Continuous Dipmeter from total depth to 3585' (minimum run). Run Gamma Ray correlation log with Dipmeter.

During drill stem testing or when a completion rig is completing a well, some flaring of natural gases or produced gases will be necessary.

- 9. No abnormal temperatures or Hydrogen Sulfide is anticipated. No abnormal pressures anticipated except the Desert Creek Porosity at 5700'. The pressure will be controlled with a mud weight of 11.7 ppg before drilling into the Desert Creek Porosity zone.
- 10. The anticipated spud date is upon approval from the State of Utah and the U. S. Geological Survey. Duration of drilling will be approximately 25 days with 2 days completion.

DRILL STEM TEST REPORT

Test No. & Interval: DST #1 Paradox 5145'-5201'Date 10/18/81
Well Name & Location: Bug Well No. 9 NE, NE, Sec. 18, T36S, R26E
Formation: Paradox Hole Size 8 3/4"
Test Type: Conventional Bottom Hole Testing Co. Halliburton
Mud Properties: Mud Wt: 8.5 Vis: 33 PH 8.5
Water Loss 19.2
Water Cushion (If any) None
Times & Pressures: Time & Date Tool opened: 4:35 P. M. 10/18/81
Preflow: 30 mins. psi F.S.T. 120 mins. psi
I.S.I.: 60 mins. psi I.Hpsi Misrun
I.F.; mins. psi F.H. psi
I.F.: psi F.H. psi
I.F.: mins. psi F.H. psi F.F. 60 mins. psi O 0 0 0
I.F.: mins. psi F.H. psi F.F. 60 mins. psi Bottom Hole Temperature, OF. Recovery & Description: Misrun Blow on Preflow: Tool opened w/weak 1" blow after pipe slid 15'; decreased to 4" in 10 minutes; dead in 20 minutes and continued throughout Gas/Fluid to surface: N.G.T.S.
I.F.: mins. psi F.H. psi F.F. 60 mins. psi Bottom Hole Temperature, OF. Recovery & Description: Misrun Blow on Preflow: Tool opened w/weak 1" blow after pipe slid 15'; decreased to 4" in 10 minutes; dead in 20 minutes and continued throughout
F.F

DRILL STEM TEST REPORT (page 2)

Test No. 1 Well Name Bug Well No. 9

Flow Measurements & Closed Chamber Data (if any):

Times Pressure Choke Flow (mins) Measurements Size Rate Description

Remarks: (reason for test failure, abnormalities on charts, water salinity (ppm) etc).

When tool was first set on bottom and opened, it slid 15' through fill to actual bottom. The perforated pipe and collars were plugged off w/fill in some places and the charts were unreadable, due to plugging. The decision was made to retest this zone w/DST #2 and this test was declared a misrun.

DRILL STEM TEST REPORT

Test No. & Interv	val: DST #2 Paradox 5145'-5201 Date 10/19/81
Well Name & Locat	ion: Bug Well No. 9 NE, NE, Sec. 18, T36S, R26E
Formation: Para	dox Hole Size 8 3/4"
Test Type: Conven	tional Bottom Hole Testing Co.: Halliburton
Mud Properties: ~	Mud Wt: 8.7+ Vis: 42 PH 8.5
	Water Loss 18
Water Cushion (If	any) None
Times & Pressures Time & Date Tool	opened: 2:45 P. M. 10/19/81 Location
Preflow: 30	mins. 93/120 psi F.S.T. 120 mins. 1201 psiTop Char
I.S.I.: 60	mins. 375 psi I.H 2336 psi
I.F.:	mins. 402 psi F.H 2336 psi
F.F. 90	mins. 429 psi
Bottom Hole Tempe	erature, 120 °F.
Recovery & Descri	ption:
Blow on Preflow:	Tool opened w/weak 3" blow; built to 6" in 10 minutes; continued 6" blow at 20 minutes; decreased to 4" in 25 minutes; increased to 10" @ end of flow
•	ace: N.G.T.G.
Type of flow duri	ng valve open (flow period): Tool opened w/very weak remained throughout
Fluid Recovered:	270' of drilling mud and 2100 cc. drilling mud
Samples: Quantit	y: 4 samples
Shipped to:	Shipped by:

DRILL STEM TEST REPORT (page 2)

Test No. 2 Well Name Buq Well No. 9

Flow Measurements & Closed Chamber Data (if any):

Times Pressure Choke Flow Measurements Size Rate Description

• • • • • •

Remarks: (reason for test failure, abnormalities on charts, water salinity (ppm) etc):

DRILL STEM TEST REPORT

rest No. & Interv	DST #3 54681-55521 Date
Well Name & Locat	cion: Bug Well No. 9 NE. NE. Sec. 18, T36S, R26F
Formation: Lower	Upper Ismay Hole Size 8 3/4"
Test Type: Convent	tional Bottom Hole Testing Co.: Halliburton
Mud Properties:	Mud Wt: 12.5+ Vis: 41 PH 11
	Water Loss 12
Water Cushion (If	any) None
Times & Pressures	
Time & Date Tool	opened: 7:18 P. M. 10/21/81
Preflow: 20	mins. 41/54 psi F.S.T. 120 mins. 149 psi Location 5447
I.S.I.: 60	mins. 149 psi I.H 3560 psi
I.F.:	mins. 81 psi F.H 3560 psi
F.F. 60	mins. 95 psi
Bottom Hole Tempe	rature, 124 °F.
Recovery & Descri	ption:
Blow on Preflow:	Tool opened w/ a weak I" blow ($\frac{1}{4}$ oz.); remained throughout
	ace: N.G.T.S.
Type of flow duri	ng valve open (flow period): Tool opened w/a very weak minutes into flow; remained dead
Fluid Recovered:	Pipe rec. 90' heavy drilling mud Sampler: 2240 cc. heavy
drilling mud Samples: Quantit	y: 2 1 @ top of pipe recovery 1 @ sampler
Shipped to:	Shipped by: Halliburton

DRILL STEM TEST REPORT (page 2)

Test No.	.3	Well Name	Bug Well N	No. 9
•				nangan panggalipatika
Flow Measur	ements & Closed	Chamber Dat	a (if any)	1:
Times (mins)	Pressure Measurements		Flow Rate I	Description

Remarks: (reason for test failure, abnormalities on charts, water salinity (ppm) etc).

. I. Tester ran preflow 10 minutes short by mistake

DRILL STEM TEST REPORT

Test No. & Interval: DST #4 5578'-5630' Date 10/23/81
Well Name & Location: Bug Well No. 9 NE, NE, Sec. 18, T36S.R26F
Formation: Lower Ismay Porosity Hole Size 8 3/4"
Test Type: Conventional Bottom Hole Testing Co.: Halliburton
Mud Properties: Mud Wt: 12.6 Vis: 44 PH 10
Water Loss 12.4
Water Cushion (If any) None
Time & Pressures: Time & Date Tool opened: 7:08 A. M. 10/23/81 Location
Preflow: 30 mins, 53/161 psi F.S.T. 180 mins, psi 5557
I.S.I.: 60 mins. 429 psi I.H 3624 psi
I.F.: mins. 107 psi F.H 3624 psi
F.F. 90 mins. 161 psi
Bottom Hole Temperature, 130 °F.
Recovery & Description: Tool opened w/weak blow; increased to good 1010 blow @ 5
Blow on Preflow: minutes; built to strong blow to B.O.B. @ 16 minutes; remained throughout N.G.T.S.
Gas/Fluid to surface: G.T.S. 52 minutes into final flow, T.S.T.M.
Type of flow during valve open (flow period): Tool opened w/strong blow to B.O.B. 2 lb. in 2 minutes; decreased to 1 lb. in 5 minutes. Flow died in 15 minutes Recovered: Closed surface choke w/fair 10" blow increased to strong blow @ 32 minutes; G.T.S. 52 minutes into flow T.S.T.M. 400' gas cut mud. Samples: Quantity: 3 Samples
Shipped to: Shipped by: Halliburton_

DRILL STEM TEST REPORT (page 2)

Test No. #4 Well Name Bug Well No. 9

Flow Measurements & Closed Chamber Data (if any):

Times Pressure Choke Flow (mins) Measurements size Rate Description

Remarks: (reason for test failure, abnormalities on charts, water salinity (ppm) etc).

	Resis.	<u>Chlorides</u>
Pit	.673 @ 71°F	4300
Top of Fluid	.644 @ 71 ⁰ F	
Top of Tools	.213 @ 70°F	
Sampler: Not reco	rded from sampl	er (too thick)

	FARMINGTON Camp	9 1 Well No. Test No.
ALLIBURTON	10-18-81 Date	5145' - 5202' Tested Interval



2033-2032 Gauge Number(s)

WEXPRO

Lease Owner/Company Name

BUG WELL Lease Name

981946 Ticket Number

TICKET NO. 981	946	_DATE	10-18-81	_HALLIBURTON	CAMP	FARMINGTON
LEASE OWNER	WFXPR0					IC
LEASE NAME	BUG WELL	the second se	WELL	NO. 9	TEST N	101
LEGAL LOCATION_	SEC. 18 - 3	36S - 26F	FORA	NATION TESTED_	PARADO)	<u> </u>
FIELD AREA	BUG FIELD	_COUNTY_	SAN JUAN	STA1	re UTA	
TYPE OF D.S.T.	OPEN HOLE					
TESTER(S)	BEN KEMP		····			
WITNESS	ROBERT MASO	NDR	ILLING CON	ITRACTORAR	APAHOE	
DEPTHS MEASURED	FROM_KELLY	BUSHING	CASING P	ERFS (FT.)	***************************************	
TYPE AND SIZE OF	GAS MEASUR	RING DEVI	CE 6" PO	SITIVE CHOKE		
		CUSH	HON D	ATA		
TYPE			AM	DUNTTNUC	_WEIGHT	(lb./gal.)
TYPE			AM	DUNTTNUC	WEIGHT	(lb./gal.)
RECOVERY (ft. or b	Ы.):					
	180' MUD AN	D CUTTING	S .	·		
		*				

FLUID PROPERTIES

SOURCE	RESISTIVIT	Υ	CHLORIDES (PPM)	SOURCE	RESISTIVI	ΓΥ	CHLORIDES (PPM)
	@	°F			. @	°F	
	@	°F			@	°F	
	@	°F			@	۰F	

REMARKS:

SLIDE 15' AFTER TOOL OPENED BEFORE REACHING BOTTOM - BOTTOM THREE COLLARS FULL OF CUTTINGS AND VERY HEAVY MUD - PLUGGING IN TOOLS DURING TEST. SEE PRODUCTION TEST DATA SHEET.

TIC	CKET	NO. 98194	16 DA	TE 10-18	-81 ELE	VATION (FT).	60001		
то	P OF	TESTED INTER	VAL (ft.)	5145' BO	TTOM OF TEST	TED INTERVA	L (ft.)	5202	
NE	NET PAY (ft.) 5' TOTAL DEPTH (ft.) 5202'								
НС	DLE C	OR CASING SIZE	(in.) 8 3/4	"MUD WI	EIGHT (lb./gal.) <u> </u>	COSITY (sec	33-35	
SU	RFAC	CE CHOKE (in.)_	BUBBLE HOSE	воттом	CHOKE (in.)_	·	.75"		
OII	L GR	AVITY	@°F	GAS GRAVIT	TY—ESTIMATE	D	_ACTUAL		
		SA	MPLER [ATA		TEMPE	RATUR	E (°F)	
PR	ESSU	RE (P.S.I.)	CUBI	C FT. OF GA	S	ESTIMATE_			
C.0	C.'s C	OF OIL	PLUGGEDC.C.	s OF WATER	<u> </u>	ACTUAL	120)	
<u>C.</u> 0	C.'s C	OF MUD	TOT/	AL LIQUID C.	C.'s	DEPTH (ft.)_			
	G	SAS/OIL R	ATIO (cu	u. ft. per	bbl.)	H.T500 □; T.E. OR R.T			
FR	OM S	SAMPLER	OTH	ER		SERIAL NO.	· · · · · · · · · · · · · · · · · · ·		
		R	RECORDE	R AND	PRESSUR	E DATA			
<u>C</u>	ART:	S READ BY	BEN KEMP		DATA APPROV	ED BY ROBER	RT MASON		
R	GAL	JGE NUMBER	2033	2032			TIA	MES	
E		JGE TYPE	1	2		(00:00-24:00 HRS,) TOOL OPENED 16:35			
O R	GAL	JGE DEPTH (ft.)	5124'	5198'			DATE		
D E R	CLO	CK NUMBER	14128	10445	·		BYPASS OPEN	NEB 1:05	
Ŝ	CLO	CK RANGE (HR.)	24	12			DATE		
	רומו	TIAL HYDROSTATIC	2269.2	2318.3			PERIOD	MINUTES	
		INITIAL FLOW					XXX	XXX	
Ρ	1 st.	FINAL FLOW					1st. FLOW	30	
R	• 	CLOSED-IN					1st. C.I.P.	60	
E S		INITIAL FLOW					XXX	XXX	
S	2nd.	FINAL FLOW					2nd. FLOW	60	
U		CLOSED-IN					2nd. C.I.P.	120	
R E		INITIAL FLOW					XXX	XXX	
S	3rd.	FINAL FLOW					3rd. FLOW		
	<u></u>	CLOSED-IN					3rd. C.I.P.		
	FIN	AL HYDROSTATIC	2255.9	2310.3			XXX	XXX	

Casing perfs		Bottom	choke		Surf. temp°F Ticket No981946
Gas gravityOil gravitySpec. gravityChlorides				Dr	om Res
			SURING DEVICE U		
Date Time a.m p.m	Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
11:00					On location.
12:30	<u> </u>				Picked up tool - tripped in hole.
16:30					On bottom.
16:35					Opened tool after sliding 15' to
		<u> </u>			bottom - opened tool with weak blow-1"
					of water in bucket.
16:45					Very weak blow with 1/4" in water.
16:55					No blow in bucket-well dead.
17:05					Closed tool.
18:05					Opened tool with no blow.
18:35					No blow.
19:05					Closed tool with no blow.
21:05			Territoria de la compansión de la compan		Pulled loose and opened bypass.
22:30					Top of fluid.
23:30			· · · · · · · · · · · · · · · · · · ·		Broke down tools and loaded out.
			 	, , , , , , , , , , , , , , , , , , ,	
			· · · · · · · · · · · · · · · · · · ·		
<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>					
<u></u>					

			118.04	 	

FORM 182-R1-PRINTED IN U.S.A.

Tool Description	0.D.	I.D.	Length	Depth
Drill Pipe	4.50"	3.826"	4548'	
Drill Collars	6.50"	. 2.25"	3761	
Reversing Sub	6.00"	3.00"	1'	4924'
Drill Collars	6.50"	2.25"	185'	
Crossover	6.00"	3.00"	1'	
Dual CIP Sampler	5.00"	.75"	7'	
Hydrospring	5.00"	.75"	5'	5122'
AP Case	5.00"	3,06"	4 '	5124'
Big John Jars	5.00"	1.75"	5'	
VR Safety Joint	5.00"	1.00"	3'	
Packer	7.50"	1.53"	6'	5139'
Packer	7.50"	1.53"	6'	5145'
Crossover	6.00"	3.00"	1'	
Drill Collars	6.50"	2.25"	31'	
Crossover	6.00"	3.00"	. 11	
Flush Joint Anchor	5.75"	4.75"	17'	
BT Case	5.75"	3.50"	4 '	5198'
TOTAL DEPTH				5202'

981946-2033 2 981946-2032

	981947 Ticket Number	
	FARMINGTON Camp	
SERVICES SERVICES	10-19-81 Date	
	2033-2032 Gauge Number(s)	

BUG WELL Lease Name

Well No. Test No.

5145'-5202' Tested Interval

WEXPRO
Lease Owner/Company Name

TICKET NO	981947	_DATE1	0-19-81	HALLIBU	JRTON CA	AMP	FARMINGTON
LEASE OWNER	WEXPRO						IC-dr
LEASE NAME	BUG WELL	· · · · · · · · · · · · · · · · · · ·	WEL	L NO	9 -	TEST	NO2
LEGAL LOCATION	Sec. 18, T-36	S-R-26E	FOR/	MATION TI	ESTED	PARAD	OX
FIELD AREA	BUG WELL	_COUNTY_	SAN JUAN		STATE_	UTAI	-
TYPE OF D.S.T	OPEN HOLE						
TESTER(S)	BEN KEMP	 					
WITNESS	ROBERT MASON	DF	RILLING CO	NTRACTOR	ARAP	AHOE	
DEPTHS MEASUR	ED FROM KELLY	BUSHING	CASING	PERFS (FT.)			ومراوية والمراوية وا
TYPE AND SIZE	OF GAS MEASUF	RING DEVI	CE 6" Pos	itive cho	ke		
		CUSH	HION D	ATA			
TYPE			AN	OUNT	W	EIGHT	(lb./gal.)
TYPE			AN	OUNT	W	EIGHT	(lb./gal.)
RECOVERY (ft. or	r bbl.):						
•	270' drilling	mud					

FLUID PROPERTIES

SOURCE	RESISTIVIT	Υ	CHLORIDES (PPM)	SOURCE	RESISTIVI	ſΥ	CHLORIDES (PPM)
	@	°F			@	°F	,
	@	°F			@	۰F	
	@	°F			@	۰F	

REMARKS:

Charts indicate that tools apparently plugged throughout test or tools did not open for final flow period. Charts read as one flow of 30 minutes-remainder of time read as closed in pressure.

TIC	KET	NO. 98194	17D	ATE 10-	-19-81 ELE	VATION (FT)	6000'		
TOP OF TESTED INTERVAL (ft.) 5145' BOTTOM OF TESTED INTERVAL (ft.) 502'									
NE	NET PAY (ft.) 51 TOTAL DEPTH (ft.) 5202 '								
но	LE O	R CASING SIZE	(in.) 8 3	/4"_MUD W	/EICHT (lb./gal.) <u>9.0</u> vis	COSITY (sec) 43-45	
SUI	RFAC	E CHOKE (in.)BL	ubble hose	BOTTON	A CHOKE (in.)_	.75"			
OIL	. GR/	AVITY	@°F	GAS GRAVI	TY-ESTIMATE	D	_ACTUAL		
		SA	MPLER I	DATA		TEMPE	RATUR	E (°F)	
PRI	ESSUF	RE (P.S.I.)	CUB	IC FT. OF GA	\ S	ESTIMATE_	mana and the same and		
C.C	.'s O	F OIL	C.C.	's OF WATER		ACTUAL	120 ⁰ F.	Attention of the second se	
<u>C.C</u>	.'s O	F MUD 21	LOOTOT	AL LIQUID C	.C.'s	DEPTH (ft.)		A A MINISTER OF THE REAL PROPERTY OF THE REAL PROPE	
	G	AS/OIL R	ATIO (c	u. ft. pe	r bbl.)	H.T500 □; T.E. OR R.T	THERMO 7 □; OT	METER XXX	
FRO	om s	AMPLER	OTH	ER		SERIAL NO.			
		R	ECORDE	R AND	PRESSUR	E DATA			
<u>CH</u>	ARTS	READ BY	BEN KEMP		DATA APPROV	ED BY	ROBERT MA	SON	
R	GAU	GE NUMBER	2033	2032			TIA (00:00-24		
E	GAU	GE TYPE	1,	2			TOOL OPENE		
O R	GAU	GE DEPTH (ft.)	5124	5198			DATE	10-19-8	
D E R	CLO	CK NUMBER	14128	10445			BYPASS OPEN	VED 1915	
S	CLO	CK RANGE (HR.)	24	12			DATE	10-19-8	
	INIT	TAL HYDROSTATIC	2331.5	2335.5			PERIOD	MINUTES	
		INITIAL FLOW	100.5	152.5			XXX	XXX	
P	1st.	FINAL FLOW	123.3	169.7			1st. FLOW	30	
R		CLOSED-IN	1243 9	1313.0			1st. C.I.P.	60	
E S		INITIAL FLOW					XXX	XXX	
S	2nd.	FINAL FLOW					2nd. FLOW	60	
U		CLOSED-IN					2nd. C.I.P.	120	
R E		INITIAL FLOW				·	XXX	XXX	
S	3rd.	FINAL FLOW					3rd. FLOW		
		CLOSED-IN .					3rd. C.I.P.		
	FINA	AL HYDROSTATIC	2303.7	2320.9			XXX	XXX	

Casing perfs			Bottom	choke	Su	rf. temp*F Ticket No981947					
Gas gravity			Oil grav	/ity	DR						
					Res						
INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED.											
		oke ize	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks					
10-19-8	31										
1441						On bottom with tools					
1445	ВН					Opened tool with a weak blow with 3"					
						hose in water bucket					
1450	81					Increase to 6" in water					
1505	- "					Decreased to 4" in water					
1515	11					Closed tool with 10-12" in water					
1615	<u> </u>					Opened tool with a very weak blow on					
· · · · · · · · · · · · · · · · · · ·						surface of water					
1645	п					No change in blow					
1715	_ "					Closed tool with a very weak blow on					
·	_			· · · · · · · · · · · · · · · · · · ·		surface of water					
1915				;		Opened bypass, trip out of hole.					
2115						Top of fluid					
2300						Broke down and loaded out tools					
	_										
				· · · · · · · · · · · · · · · · · · ·							
			· · · · · · · · · · · · · · · · · · ·			. Sy					

Tool Description	0.D.	I.D.	Length	Depth
Drill Pipe	4.50"	3.826 "	4589'	
Drill Collars	6.50"	2.25"	427'	
Reversing sub	6.00"	3.00"	1'	5016'
Drill Collars	6.50"	2.25"	93'	
Crossover	6.00"	3.00"	1'	
Dual CIP Sampler	5.00"	.75"	7'	
Hydrospring	5.0"	.75"	5'	5122'
AP Case	5.00"	3.06"	4 '	5124'
Big John Jars	5.00"	1.75"	5'	
VR Safety Joint	5.00"	1.00 ^u	31	
Packer	7.50"	1.53"	6.1	5139'
Packer	7.50"	1.53"	6'	5145'
CRossover	6.00"	3.00"	1'	
Drill Collar	6.50"	2.25"	31'	
Crossover	6.00"	3.00"	1'	
Flush Joint anchor	5.75"	4.75 "	17'	
B.T. Case	5.75"	3.50 "	4'	
Total Depth				5202'

781741-2033 181747-2032

HA	LLIBÜRT	ON
	SERVICES	

BUG Lease Name Ticket Number 981850 Well No. FARMINGTON Camp Test No. 5468' - 5552' Tested Interval 10-22-81 Date **WEXPRO** 6040 - 6039 Lease Owner/Company Name Gauge Number(s)

TICKET NO	981850	DATE 10-22-8	3] HALLIBU	RTON CAMPFARMINGTON		
LEASE OWNER_	WEXPRO			IC/pw		
LEASE NAME	BUG		WELL NO. 9	TEST_NO3		
LEGAL LOCATION 18 - 36 S - 26 E FORMATION TESTED LOWER UPPER ISMAY						
FIELD AREA	BUG	COUNTYSAN	JUAN	STATE UTAH		
TYPE OF D.S.T.			1			
TESTER(S)	D. AULD			·		
WITNESS		DRILLING	CONTRACTOR	ARAPAHOE		
DEPTHS MEASURED FROM KELLY BUSHING CASING PERFS (FT.)						
TYPE AND SIZE	OF GAS MEASUR	ING DEVICE		M ====		
CUSHION DATA						
TYPE			_AMOUNT	WEIGHT (lb./gal.)		
TYPE			_AMOUNT	WEIGHT (lb./gal.)		
RECOVERY (ft. or bbl.):						

90' OF MUD.

FLUID PROPERTIES

SOURCE	RESISTIVITY	CHLORIDES (PPM)	SOURCE	RESISTIVITY	CHLORIDES (PPM)
PIT	.819 @ 65 °F			@ °F	
TOP	.821 @ 67 °F			@ °F	
SAMPLER	.831 @ 66 °F			@ °F	

REMARKS:

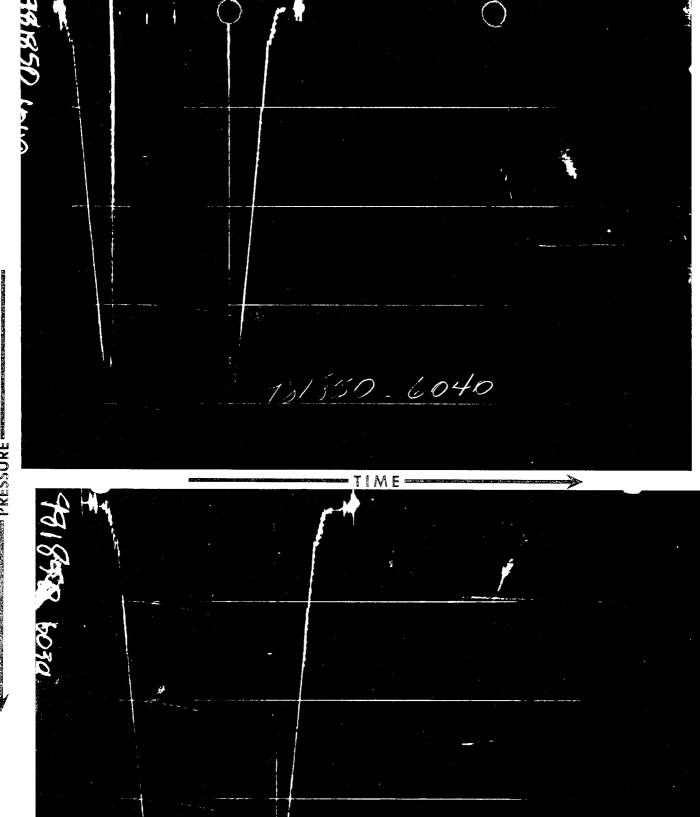
- SEE PRODUCTION TEST DATA SHEET -

TIC	KET	NO. 981850	DA	TE 10-22-	-81 ELE	VATION (FT).	6014	, , , , , , , , , , , , , , , , , , ,
		TESTED INTER		58 ' BO	TTOM OF TEST	TED INTERVA	L (ft.) 5	552'
NE	ΓРΑ	Y (ft.) 4'		TOTAL	DEPTH (ft.)	5552'		
		R CASING SIZE					COSITY (sec.)_47
		E CHOKE (in.)			•			
		\VITY@					_ACTUAL	
			MPLER D			TEMPE		
PRE	SSUF	RE (P.S.I.) 2			\S	ESTIMATE_		• • •
		F OIL				ACTUAL	124	
C.C	.'s O	F MUD22	40TOTA	L LIQUID C.	C.'s 2240	DEPTH (ft.)_		
•		AS/OIL R				H.T500 □; T.E. OR R.T	THERMO	
FRC		AMPLER		•		SERIAL NO.		
	· · · · ·	R	ECORDE	R AND	PRESSUR			
CH.	ARTS	READ BYD	. AULD		DATA APPROV	ED BY	· · · · · · · · · · · · · · · · · · ·	
			6040	6039			TIA	
R E C	GAUGE TYPE		1	2			(00:00-24)	
O R	GAUGE DEPTH (ft.)		5447	5549			DATE 10-2	
D E R	CLO	CK NUMBER	14128	13840			BYPASS OPEN	1ED 2338
S	CLO	CK RANGE (HR.)	24	24			DATE 10-2	1-81
	INIT	IAL HYDROSTATIC	3569.1	3644.4			PERIOD	MINUTES
		INITIAL FLOW	37.8	107.0			XXX	XXX
P	1st.	FINAL FLOW	55.4	136.8			1st. FLOW	20
R		CLOSED-IN	151.3	222.2			lst. C.I.P.	60
E S		INITIAL FLOW	81.0	154.4			XXX	XXX
S	2nd.	FINAL FLOW	89.1	162.6			2nd. FLOW	60
U		CLOSED-IN	148.6	215.4			2nd. C.I.P.	120
R E		INITIAL FLOW					XXX	XXX
S	3rd.	FINAL FLOW					3rd. FLOW	
	_	CLOSED-IN					3rd. C.I.P.	
	FIN/	AL HYDROSTATIC	3566.3	3643.0			XXX	XXX

Casina nerfs		Bottom	choke		Surf. temp°F Ticket No981850
Gas gravity		Oil gra	vity		GOR
Spec. gravity		Chlorid	es	рр	m Res
			SURING DEVICE U		
Date 10-21-81 Time a.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
1609					On location.
1728					Tool on trip in.
1918					Opened tool with a weak blow.
1928 ·					
1938					Closed tool.
2038					Reopened tool with a very weak blow.
2112					Dead.
2138					Closed tool.
2338					Opened bypass - tripped out.
10-22-81					
0342					Job completed.
			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
· · · · · · · · · · · · · · · · · · ·		·			

TICKET NO. 981850

Tool	Description	0.D.	I.D.	Length	Depth
	Dril, Pipe	4.5"	3.826"	4934'	
	Drill Collars	6.5"	2.25"	467'	
	Reversing Sub - Hollow Pin	6"	3"	1'	5402
	Drill Collar	6.5"	2.25"	314	
	Crossover	6"	3"	1'	
	Dual CIP Sampler	5"	.87"	7'	
	Hydrospring Tester	5"	.75"	5'	5445'
	AP Running Case	5"	2.25"	4'	5447'
	Big John Jar	5"	1.75"	5 '	
	V.R. Safety Jt.	5"	1"	3'	
	Packer Assembly	7.75"	1.53"	6'	5462'
	Packer Assembly	7.75"	1.53"	61	5468'
	Crossover	6"	3"	1'	
	Drill Collars	6.5"	2.25"	62'	
	Crossover	6"	3"	ין	
	Flush Jt. Anchor	5.75"	2.25"	14'	
	Blanked-off Running Case	5.75"		4'	55491
	TOTAL DEPTH				5552'



Each Horizontal Line Equal to 1000 p.s.i.

DATE	Oct 10, 1980
	ATOR: Legge Co.
WELL	NO: Bug 9
Locat	tion: Sec. 18 T. 365 R. 26E County: Son June
File	Prepared: Entered on N.I.D:
Card	Indexed: Completion Sheet:
	API Number 43-037-30604
CHECH	KED BY:
	Director: OK as per order issued in Cense 186-1 del
	Administrative Aide:
<u>APPR(</u>	OVAL LETTER:
	Bond Required: / Survey Plat Required: / /
	Order No. 186-1 2/27/80 O.K. Rule C-3
	Rule C-3(c), Topographic Exception - company owns or controls acreage within a 660' radius of proposed site
	Lease Designation Dell Plotted on Map
	Approval Letter Written Hot Line P.I.
	Hot Line P.I.

October 17, 1980

Wexpro Company
P. O. Box 1129
Rock Springs, Wyoming 82901

Re: Well No. Bug #9
Sec. 18, T. 36S, R. 26E,
San Juan County, Utah

Insofar as this office is concerned, approval to drill the above referred to oil well is hereby granted in accordance with the Order issued in Cause No. 186-1 dated February 27, 1980.

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify the following:

MICHAEL T. MINDER - Petroleum Engineer Office: 533-5771

Home: 876-3001

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (acquifers) are encountered during drilling. Your cooperation in completing this form will be appreciated.

Further, it is requested that this Division be notified within 24 hours after drilling operations commence, and that the drilling contractor and rig number be identified.

The API number assigned to this well is 43-037-30604.

Sincerely,

DIVISION OF OIL, GAS, AND MINING

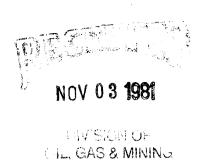
Cleon B. Flight /ka

Cleon B. Feight

Director

/ka

cc: USGS





BUG WELL

TICKET NO. 98194	DATE 10-23-81 HALLIBURTON CAMP FARMINGTON
LEASE OWNER	WEXPRO COMPANY . SM b,j
LEASE NAME	BUG WELL NO. #9 TEST NO. #4
LEGAL LOCATION_	18 36S 26E FORMATION TESTED LOWER ISMAY POROSITY
FIELD AREA	BUG FIELD COUNTY SAN JUAN STATE UTAH
TYPE OF D.S.T.	OPEN HOLE
TESTER(S)	BEN KEMP
WITNESS	ROBERT MASER DRILLING CONTRACTOR ARAPAHOE DRILLING COMPANY
DEPTHS MEASURED	FROM KELLY BUSHING CASING PERFS (FT.)
TYPE AND SIZE OF	GAS MEASURING DEVICE 6" POSITIVE CHOKE
	CUSHION DATA
TYPE	AMOUNTWEIGHT (lb./gal.)
TYPE	AMOUNTWEIGHT (lb./gal.)
RECOVERY (ft. or b	ьЫ.):
	400 feet of gas cut mud

FLUID PROPERTIES

		_				
SOURCE	RESISTIVITY	CHLORIDES (PPM)	SOURCE	RESISTIVITY	CHLORIDES (PPM)	
PIT	.673 @ 71 °F	4300	SAMPLER	.213 @ 70 °F	5000	
TOP OF FLUID	.644 @ 71 °F	4000		@ °F		
TOP OF TOOLS	.213 @ 70 °F	5000		@ °F		

REMARKS:

SEE PRODUCTION TEST DATA SHEET....Charts indicate possible plugging during the flow periods....

TIC	CKET NO. 98194	8DA	TE 10-23	3-81ELE	VATION (FT)	6000'	
	P OF TESTED INTER				30		
NET PAY (ft.) 14' TOTAL DEPTH (ft.) 5630'							
	LE OR CASING SIZE					COSITY (sec	.)40
	RFACE CHOKE (in.)_						
	GRAVITY					_ACTUAL	
	SA	MPLER D	ATA		TEMPE	RATUR	E (°F)
PR	ESSURE (P.S.I.) 20	CUBI	C FT. OF GA	.S	ESTIMATE_	·	
C.C	.'s OF OIL	C.C.′s	OF WATER		ACTUAL	130	
<u>C.C</u>	.'s OF MUD21	00TOTA	L LIQUID C.	C.'s	DEPTH (ft.)_	5626'	
	GAS/OIL R				I H.T500 □:	THERMO	METER MY
FRO	OM SAMPLER	OTHE	R		SERIAL NO.		
	R	ECORDE	R AND	PRESSUR	E DATA		
<u>CH</u>	ARTS READ BYBE	N KEMP		DATA APPROV	ED BY ROB	ERT MASER	
R	GAUGE NUMBER	2033	2032	, in the second		TIA (00:00-24	MES HRS
E	GAUGE TYPE	1	2			TOOL OPENE	
O R D	GAUGE DEPTH (ft.)	5556	5626			DATE	10-23-81
E R	CLOCK NUMBER	10445	13840			BYPASS OPEN	NED1310
S 	CLOCK RANGE (HR.)	12	24			DATE	10-23-81
	INITIAL HYDROSTATIC	3672.1	3720.4			PERIOD	MINUTES
	INITIAL FLOW	71.2	148.4			XXX	XXX
P	1st. FINAL FLOW	190.2	216.7			1st. FLOW	24.6
R E	CLOSED-IN	473.7	504.2			1st. C.I.P.	62.3
S	INITIAL FLOW	130.4	134.2			XXX	XXX
S	2nd. FINAL FLOW	199.2	222.7			2nd. FLOW	91.4
U	CLOSED-IN	2163.9	2186.5			2nd. C.I.P.	178.3
R E	INITIAL FLOW					XXX	XXX
S	3rd. FINAL FLOW					3rd. FLOW	
	CLOSED-IN					3rd. C.I.P.	
	FINAL HYDROSTATIC	3661.3	3707.7			XXX	XXX

Casing perf	s		Botton	choke	Sı	urf. temp°F Ticket No981948			
Gas gravity			Oil gro	vity	6	OR			
Spec. gravit	Spec. gravityChloridesppm Res@°F								
INDICATE	INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED								
Date		Choke	Surface	Gas	Liquid				
Time	a.m.	Size	Pressure	Rate MCF	Rate BPD	Remarks			
	p.m.		psi	MCF	BPD				
10-23	-81								
0545						On bottom with tool. Waited for day-			
			•						
						light to open tool.			
0705						Tanana di Bartana			
0703		Bubb1		· · · · · · · · · · · · · · · · · · ·		Tagged bottom and set packers.			
0708		Hose	3			Opened tool with a weak blow.			
0713				,		Increased to a good blow-10" in water.			
						300 - 10, 100 001 6			
0718		11				Increased with blow 1" from bottom.			
0724		п				Increased to strong blow at bottom of			
						bucket.			
0727		. 125"				Opened to pit on choke.			
0738		11				Closed for CIP with strong blow.			
0840		n				Opened tool with a strong blow.			
0842		.375"	2			Changed choke at surface.			
						onanges onone so our race.			
0845		II	1			Pressure change.			
0853		Bubbl Hose	2		*	Flow died Classed sources a shake with			
0000		nose				Flow died. Closed surface choke with a fair blow.			
0910		n .				Strong blow increase.			
0915		.375"				Opened surface choke to pit.			
0930		11				Gas to surface - flared to pit.			
0950		11	-			Still flaring gas to pit.			
· · · · · · · · · · · · · · · · · · ·	1	11							
1010						Shut tool with gas flared to pit.			
1310	1			1		Opened bypass and pulled tool loose.			
						Tripped out of hole.			
1445						Top of recovery.			
1530						Broke down and loaded out tools.			
			·						
						·			

WEXPRO	COMPANY
--------	---------

981948

Page 1

Lease Owner/Company Name

Ticket Number

2033 B.T. _

2032 B.T. _____

B.T. _____

Depth __5556 '

5626' Depth __

Depth _____

	Time (minutes)	$Log \frac{t + \Theta}{\Theta}$	PSIG Temp. Corr.	Time (minutes)	$Log \frac{t + \Theta}{\Theta}$	PSIG Temp. Corr.	Time (minutes)	Log t + th	PSIG Temp. Corr.
П	FIRST	FLOW		FIRST	FLOW				
П	0		71.2	0		148.4			
П	5		126.2	5		173.7			
П	10		151.9	10		180.5			
П	15		170.1	15		201.5			
Ц	20		182.7 190.2	20		209.7			
Ц	24.6		190.2	24.6		216.7			
Ц							<u> </u>		
Ц	FIRST	CIP		FIRST	CIP				
Ц	0		190.2	0		216.7	J		
Ц	62.3		473.7	62.3	ļ	504.2			
Ц							<u> </u>	<u> </u>	
Ц		D FLOW		SECONE	FLOW		<u> </u>		
Ц	0	- 00	130.4	0		134.2			
Н	4	CC	173.9	3.8	CC	187.9			<u>-</u>
Н	15	50	211.9	15.0		247.2	<u> </u>		
Н	20.6	PC	233.9	19.5	PC	261.7	ļ		
Н	30		228.2	30		254.1			
Н	45		218.5	45		239.4			
Н	60		212.3	60		237.1		-	
Н	75		226.5	75		240.2	ļ		
Н	91.4	·	199.2	91.4		222.7			-
Н	CECON	0.70		CECONE	CID		ļ		
Н	SECON	ט נוף	100.0	SECOND	CIP	000 7	<u> </u>	1	
Н	0 10		199.2 348.5	0		222.7 371.1			
Н	20		512.7	10		536.6	1	-	
Н	30		668.5	20 30		692.8			
H	40	<u></u>	826.7	40		847.1	1		
H	50		976.7	50		999.9			
H	_60		1118.8	60		1144.6			
H	70		1255.3	70		1280.8	———		
Ħ	80		1382.6	80	 	1414.4	-		
Ħ	90		1503.4	90		1534.1			
Н	100		1615.6	100		1646.6			
П	110		1714.7	110		1751.2	1		
П	120		1807.2	120	1	1846.7			
П	130		1892.7	130		1928.0			
П	140		1967.4	140		1999.3			
П	150		2031.0	150		2060.5			
П	160		2084.2	160		2113.0			
П	170		2130.9	170		2156.5			
П	178.3		2163.9	178.3		2186.5			
П									

Remarks: _

CC-Choke change PC-Possible choke change

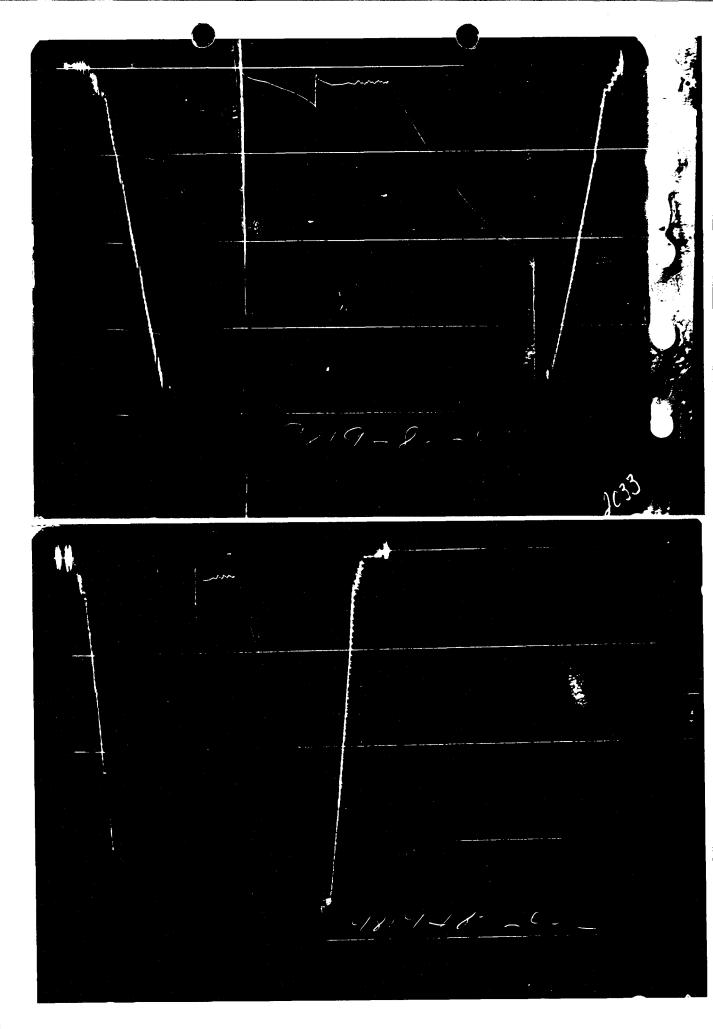
•			TICKET NO	981948
Tool Description	0.D.	I.D.	Length	Depth

Tool Description	0.D.	I.D.	Length	Depth	
DRILL PIPE	4.50"	3.826"	5012'		
DRILL COLLARS	6.50"	2.25"	441'		
REVERSING SUB	6.00"	3.00"	1'	5453'	
DRILL COLLARS	6.50"	2.25"	90'		
CROSSOVER	6.00"	3.00"	1'		
DUAL CIP SAMPLER	5.00"	.75"	7'		
HYDROSPRING TESTER	5.00"	.75"	51	5554	
AP RUNNING CASE	5.00"	3.06"	4'	5556'	
BIG JOHN JARS	5.00"	1.75"	5'		
VR SAFETY JOINT	5.00"	1.00"	3'		
PACKER	7.50"	1.53"	6'	5572'	
PACKÉR	7.50"	1.53"	6'	5578'	
CROSSOVER	6.00"	3.00"	1'		
DRILL COLLAR	6.50"	2.25"	31'		
CROSSOVER	6.00"	3.00"	1'	•	
FLUSH JOINT ANCHOR	5.75"	4.75"	14'		
BT RUNNING CASE	5.75"	3.50"	4'	5626'	
TOTAL DEPTH				5630'	

FORMATION TESTING SERVICE REPORT

Lleacefilm







DIVISION OF OIL, GAS & MINING

WEXPRO COMPANY

Bug Well No. 9

Section 18, T36S, R26E San Juan County, Utah GEOLOGIC REPORT

for

WEXPRO COMPANY

on -

BUG WELL NO. 9

Section 18, T36S-R26E

San Juan County, Utah

TABLE OF CONTENTS

Well data summary	ŀ
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Drill stem test reports	7
Formation evaluation	15
Lithologic descriptions	18

November 1981

Mike Meeker Geologist

WELL DATA SUMMARY

Well Name:

Bug Well No. 9

Operator:

Wexpro Company

Location:

NE, NE, Sec. 18, T36S, R26E

County and State:

San Juan County, Utah

Area:

Bug Field

Drilling Contractor:

Arapahoe Drilling Company

Elevation:

G.L.: 60321

K.B.: 6046'

Depth Logged:

4000! -5822!

Well Status:

Developmental

Casing Program:

Surface: 9 5/8" (36#, K55) set @ 1420'

Production: 5 1/2"

Mechanical Logs Run:

1. DIL-SP-GR

2. CNL/FDC-GR-CAL

Cores:

No cores cut

DST:

DST No. 1 -- Paradox - 5145' - 5201' (misrun)

DST No. 2 -- Paradox - 5145' - 5201'

DST No. 3 -- Lower Upper Ismay - 5468' - 5552'

DST No. 4 -- Lower Ismay Porosity - 5578' - 5630'

Mudlogging Company:

Smith Mudlogging, inc.

FORMATION TOPS

FORMATION	PROGNOS IS	SAMPLE	ESTIMATED TOP	E-LOG	SUBSEA LOG
Honaker Trail	4060'	40801	40851	40841	+1962'
Paradox	47451	4780 '	4780¹	4781 '	+1265
Upper Ismay	5240¹		5251	5245'	+ 801'
Lower Upper Ismay	54051	5440	5434 '	54271	+ 619'
Lower Ismay Shale	54751	5500	5490 '	5488	+ 5581
Lower Ismay Ø	5585 '	5620 '	5613 '	5610	+ 436'
"B" Zone Shale	5600 '	5640 ¹	56271	56241	+ 422
Desert Creek	5650 '	5690 '	56841	5678 '	+ 368
Lower Bench	56951		5734 '	57291	+ 317
Desert Creek Ø	57001	5740¹	5739 '	5734	+ 312
Akah	, and (also man)	5780 ¹	5778!	5781	+ 265
Salt	5785 '	quin com and and	5824	5819 '	+ 227
T. D.			58271	5822 '	+ 224



DAILY DRILLING SUMMARY

Doto	Depth	Progress	Hrs.	Mud Mass	Visc.	W.L.	PH	<u>Activity</u>
Date	. 4438	643'		8.4	27		10.5	Drilling w/water/Benex
10/15	4931	493!		8.4	27		10,5	Drilling
10/17	5201	270'		8.5	. 34	18.0	9	Waiting for rig repairs
10/18	5201	0		8.5	33	19.2	8.5	TIH to cond for DST #1
10/19	5201	.0		8.5+	33	18.0	8.5	Circ. & cond prior to DST #2
10/20	5301	100'		8.8	47		9	Drilling
10/21	5548	247'		12.5	41.	12	11	Drilling prior to DST #3
10/22	5558	10'		12.5	40	11.8	10	Drilling
10/23	5630	721		12.6	44	12.4	10	DST #4 Lower Ismay Ø
10/24	5681	51.1		12.5+	41	12	10.5	Drilling
10/25	5827	146'		12.5+	42	12	10.5	Running E-logs w/S(cup)
				···· • • • • • • • • • • • • • • • • •				



DEVIATION SURVEYS

Deviation surveys after surface casing

DEPTH	SURVEY	CHANGE
A70A	1 1/40	
4784		
5201	10.	
•		
	•	
-		
	•,	
•••		
	•	
<u> </u>		
-		
	· · · · · · · · · · · · · · · · · · ·	
•		
•		
	· · · · · · · · · · · · · · · · · · ·	-

BIT RECORD

OIL	co.:_	Wexp	ro Com	pany	· .		WE	ILL NAME:		Bug W	ell No	. 9	LOCAT	MOL	NO:	NE	, NI	E, Sec. 18,	T36S, R26
								County	1000				_						
																		PROD CSG:_	
				I:Nat								s	PUD DZ	YTE:	10/9	/81		G.L.:	6032
		• • •	•	IL: Ems														K.B.:	60461
No.	size,	Type Make	pets	Bit Ser.No.	Depth out	Feet .	Hours	Accum Hours	Wt Lbs.	RPM	Vert Dev.	Pump Press	Mud Wt	vis	Bi	t.Cc	nd G	Remarks	
			12, 12, 12	1	1450	1450	35 3/4	35 3/4				1200	9	46					
2	8 3/4	Sec S86F	11, 12, 12		4784	3334	94 3/4	130 🚽		70	1 #								***************************************
_		F3	[11],	BR 0203	l	1		145 3/4	38	70	10	1200							
	8 3/4	F3	12, 12	RR #3	5553	301	40 3/4	186 ½	38	66		1150	12.2	38				·	
	8 3/4			RR #3	5630 1	77	12 3/4	199 ‡	40	58		1000	12.5						
6	8 3/4	STC F3	11 12. 12	RR #3	5827	197			40	52		1000/ 1150	12.5					•	
. 4								•											•
-														·					
											·								
M								١											
***************************************																			Andread Control of the Control of th
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-																		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	ហ
																			Martin

10/25/81

DATE:

LOGGING REPORT

Logging Co.: Schlumberger	Logging	Engineer: Mike	McBride Tr	uck No.: 8147
Depth (Driller's): 5827'			·	
Hole Size: 8 3/4" Casin				
Mud details:	12.5	15	- Aug 10.5 r	. 1 . 12.0
Mud Type: LSND	Wt.: 12.3	V1S: 42	pns	
Salinity at time of loggin	g: 0.49.2.@ 65° F	(ppm-chlori	.des)	
Hole conditions prior to l	ogging: Hole apr	nears to be in go	od condition pr	lor
loaging				
Operations summary:- Circ. Description of dummy trips		(hrs) 2½,	No. of "Dummy	Trips" 0
Description of dumy trips		F	Hours logging:_	5 <u>½</u>
Logging Sequence:				
Logs Time Spent in hours	Remarks			
1. DIL-SP-GR 5½	Run both the re	sistidity and por	rosity	
2. CNL-FDC-GR-Cal	logs together o	n one run; no di	fficulties encou	ıntered
			*	
		·		•
		1	Failed:	0
No of runs in hole: Total	Succe	eeded: 1	rarka.	
Further Remarks:				

DRILL STEM TEST REPORT

Test No. & Interval: DST #1 Paradox 5145'-5201 Date 10/10/01
Well Name & Location: Bug Well No. 9 NE, NE, Sec. 18, T36S, R26E
Formation: Paradox Hole Size 8 3/4"
Test Type: Conventional Bottom Hole Testing Co. Halliburton
Mud Properties: Mud Wt: 8.5 Vis: 33 PH 8.5
Water Loss 19.2
Water Cushion (If any) None
Time & Pressures: Time & Date Tool opened: 4:35 P. M. 10/18/81
Preflow: 30 mins. psi F.S.T. 120 mins. psi
I.S.I.: 60 mins. psi I.H psi Misrun
I.F.: psi F.H psi
F.F. 60 mins. psi
Bottom Hole Temperature,F.
Recovery & Description: Misrun
Blow on Preflow: Tool opened w/weak 1" blow after pipe slid 15'; decreased to 4" in 10 minutes; dead in 20 minutes and continued throughout Gas/Fluid to surface: N.G.T.S.
Type of flow during valve open (flow period): Tool opened w/no blow and continued throughout Fluid Recovered:
Samples: Quantity:
Shipped to: Shipped by:

DRILL STEM TEST REPORT (page 2)

Pressure .

Measurements

Times

(mins)

Test	No. 1		Well Na	me Bug We	II No. 9	
						•
Flow	Measurements	& Closed	Chamber	Data (if	any);	• • • • • • • • • • • • • • • • • • •
•			-			

Choke

size

Flow

Rate

Description

Remarks: (reason for test failure, abnormalities on charts, water salinity (ppm) etc).

When tool was first set on bottom and opened, it slid 15' through fill to actual bottom. The perforated pipe and collars were plugged off w/fill in some places and the charts were unreadable, due to plugging. The decision was made to retest this zone w/DST #2 and this test was declared a misrun.

DRILL STEM TEST REPORT

Test No. & Interval: DST #2 Paradox 5145'-5201 Date 10/19/81
Well Name & Location: Bug Well No. 9 NE, NE, Sec. 18, T36S, R26E
Formation: Paradox Hole Size 8 3/4"
Test Type: Conventional Bottom Hole Testing Co.: Halliburton
Mud Properties: Mud Wt: 8.7+ Vis: 42 PH 8.5
Water Loss 18
Water Cushion (If any) None
Times & Pressures: Time & Date Tool opened: 2:45 P. M. 10/19/81 Location
Preflow: 30 mins, 93/120 psi F.S.I. 120 mins, 1201 psiTop Char
I.S.I.: 60 mins. 375 psi I.H 2336 psi
I.F.: mins. 402 psi F.H 2336 psi
F.F. 90 mins. 429 psi
Bottom Hole Temperature, 120 °F.
Recovery & Description:
Blow on Preflow: Tool opened w/weak 3" blow; built to 6" in 10 minutes; continued 6" blow at 20 minutes; decreased to 4" in 25 minutes; increased to 10" @ end of flow
Gas/Fluid to surface: N.G.T.G.
Type of flow during valve open (flow period): Tool opened w/very weak blow on surface and remained throughout Fluid Recovered: 270' of drilling mud and 2100 cc. drilling mud
Samples: Quantity: 4 samples
Shipped to: Shipped by:

DRILL STEM TEST REPORT (page 2)

Flow	Meas	suremen	ts &	Closed	Chambe	r Dat	a (if	anyl:		•
•	•			••		•		•		
Test	No.	2			Mell	Maine	Bud W	ell No.		. *

Well Name Bug Well No: 9

. Choke Flow Pressure. Times Description size Rate Measurements (mins)

(reason for test failure, abnormalities on Remarks: charts, water salinity (ppm) etc):

DRILL STEM TEST REPORT

Test No. & Interval: DST #3 5468'-5552' Date 10/21/81
Well Name & Location: Bug Well No. 9 NE. NE. Sec. 18, T36S, R26F
Formation: Lower Upper Ismay Hole Size 8 3/4"
Test Type: Conventional Bottom Hole Testing Co.: Halliburton
Mud Properties: Mud Wt: 12.5+ Vis: 41 PH 11
Water Loss 12
Water Cushion (If any) None
Times & Pressures: Time & Date Tool opened: 7:18 P. M. 10/21/81
Preflow: 20 mins. 41/54 psi F.S.T. 120 mins. 149 psi Location 5447
I.S.I.: 60 mins. 149 psi I.H 3560 psi
I.F.: mins. 81 psi F.H 3560 psi
F.F. 60 mins. 95 psi
Bottom Hole Temperature, 124 °F.
Recovery & Description:
Blow on Preflow: Tool opened w/ a weak l" blow (4 oz.); remained throughout
Gas/Fluid to surface: N.G.T.S.
Type of flow during valve open (flow period): Tool opened w/a very weak surface blow; died 34 minutes into flow; remained dead
Fluid Recovered: Pipe rec. 90' heavy drilling mud. Sampler: //4U.cc. neavy
Samples: Quantity: 2 1@ top of pipe recovery 1@ sampler
Shipped to: Shipped by: Halliburton

DRILL STEM TEST REPORT (page 2)

Test No	3	Mell Nam	e bug we	111 NO. 9
Flow Measur	ements & Closed	Chamber D	ata (II	artA f 4
Times (mins)	Pressure Measurements	Choke size	Flow Rate	Description

Remarks: (reason for test failure, abnormalities on charts, water salinity (ppm) etc).

. I. Tester ran preflow 10 minutes short by mistake

DRILL STEM TEST REPORT

Test No. & Interval: DST #4 5578'-5630' Date 10/23/81
Well Name & Location: Bug Well No. 9 NE. NE. Sec. 18. T36S.R26F
Formation: Lower Ismay Porosity Hole Size 8 3/4"
Test Type: Conventional Bottom Hole Testing Co.: Halliburton
Mud Properties: Mud Wt: 12.6 Vis: 44 PH 10
Water Loss 12.4
Water Cushion (If any) None
Times & Pressures: Time & Date Tool opened: 7:08 A. M. 10/23/81 Location
Preflow: 30 mins, 53/161 psi F.S.T. 180 mins, psi 5557
I.S.I.: 60 mins. 429 psi I.H 3624 psi
I.F.: mins. 107 psi F.H 3624 psi
F.F. 90 mins. 161 psi
Bottom Hole Temperature, 130 °F.
Recovery & Description: Tool opened w/weak blow; increased to good 101 blow @ 5
Blow on Preflow: minutes; built to strong blow to B.O.B. @ 16 minutes; remained throughout N.G.T.S.
Gas/Fluid to surface: G.T.S. 52 minutes into final flow, T.S.T.M.
Type of flow during valve open (flow period): Tool opened w/strong blow to B.O.B. 2 lb. in 2 minutes; decreased to 1 lb. in 5 minutes. Flow died in 15 minutes Recovered: Closed surface choke w/fair 10" blow increased to strong blow @ 32 minutes; G.T.S. 52 minutes into flow T.S.T.M. 400' gas cut mud.
Samples: Quantity: 3 Samples
Shipped to: Shipped by: Halliburton

DRILL STEM TEST REPORT (page 2)

Test No. #4 Well Name Bug Well No. 9

Flow Measurements & Closed Chamber Data (if any):

Times Pressure Choke Flow (mins) Measurements Size Rate Description

Remarks: (reason for test failure, abnormalities on charts, water salinity (ppm) etc).

 $\frac{\text{Resis.}}{\text{Chlorides}}$ Pit .673 @ 71^{O}F 4300 . Top of Fluid .644 @ 71^{O}F .213 @ 70^{O}F Sampler: Not recorded from sampler (too thick)

FORMATION EVALUATION

I began geologic responsibility for the Wexpro Company, Bug Well No. 9, in Section 18, T36S, R26E, on October 15, 1981. We were drilling in the upper Honaker Trail when I arrived on location. I backlogged the interbedded reddish-orange sands and shales of the Permian Cutler Formation to 4000'. They were drilling with water and didn't fully mud up until 5500', so sample quality was generally poor to very poor through the upper section of the well.

Honaker Trail Formation: Hermosa Group, Upper Pennsylvanian 4084'-4781'

The transition from the Permian deposits of the Cutler to the Pennsylvanian deposits of the Honaker Trail was a very gradual one and was made more difficult to discern, due to the poor sample quality. The top of the Honaker Trail was identified by the introduction of massive limestones and a gradual change in the color of the shales from those of the Cutler Formation.

The Honaker Trail consisted of a thick interbedded sequence of limestones, shales and occasional thick, massive sandstones. The limestones were all visibly tight and the sandstone porosites were difficult to determine, due to their unconsolidated nature. A 28-unit total gas increase was noted from one such sand at 4657'-4680', with no sample show.

Conclusion: Zone is of little or no economic interest locally.

Paradox Formation: Hermosa Group, Pennsylvanian 4781'-5822'

The Paradox Formation is an evaporate facies in the Hermosa Group and developed in a restricted marine environment. This zone consisted of a thick alternating sequence of limestones, maristones, shales, anhydrites and occasionally massive sandstones. A drilling break in limestone was encountered at 5171'-5176' with a 172-unit total gas increase in which we tested with DST #1 and DST #2. DST #1 was a misrun and DST #2 yielded poor and, in my opinion, inconclusive results.

Conclusion: Zone of minor economic interest. The aforementioned limestone interval, which we tested, needs to be looked at closely on the E-logs.

The Upper Ismay zone was identifed by the introduction of a very argillaceous medium to dark greyish-brown limestone, which was grading to a marIstone and was penetrated at 5245', according to the E-log profile. The shales of this interval were of similar composition and color, except toward the base, where they became dark grayish-brown to black, very calcareous and carbonaceous

Conclusion: Zone of little or no economic interest.

The Lower Upper Ismay zone was picked at the base of the carbonaceous shale described above and consisted of a thin anhydrite bed at the top, with an underlaying tight limestone. This limestone interval was followed by an underlying very finely crystalline and earthy dolomite, which exhibited minor, poor observable intercrystalline porosity (4-6%) and a total gas increase of 38 units. This zone was tested with DST #3 from 5468'-5552' with the resultant recovery of 90' of drilling mud.

Conclusion: Zone of little or no economic interest locally.

The lower Ismay shale was penetrated at 5488! and consisted of a thick interval of dark grayish-brown calcareous, carbonaceous, and occasionally silty shale, with an underlying massive anhydrite bed.

Conclusion: Zone of interest as a potential hydrocarbon source bed.

The Lower Ismay Porosity consisted of an earthy and very fine crystalline dolomitic limestone, which exhibited 7-9% intercrystalline porosity and was capped by the massive anhydrite mentioned above. A 45-unit total gas increase was noted from this zone, which prompted DST #4 from 5578'-5630'. We had gas to surgace 52 minutes into final flow, which was too small to measure and the recovery of 400' of gas cut mud.

Conclusion: Zone of some economic interest. Although the drill stem test results were fairly poor, this zone has fair porosity and the permeability can be enhanced by completion techniques which may make this zone potentially significant.

The "B" zone shale was encountered at 5624' and consisted of a dark to very dark grayish-brown and black calcareous and carbonaceous shale. This interval serves as a good marker bed and is of no economic interest except as a potential source bed.

The Desert Creek zone was picked at the base of the shale described above and consisted of a very silty and sandy limestone, which was grading to a calcareous sandstone in part. An underlying thick anhydrite was followed by a thick, tight argillaceous and silty limestone.

Conclusion: Zone of little or no economic interest, due to lack of hydrocarbon shows.

The Lower Bench zone was picked at the base of an argillaceous dolomite and at the top of a thin anhydrite.

Conclusion: Zone of little or no economic interest.

The Desert Creek Porosity was encountered at the base of the Lower Bench anhydrite at 5735' and encompassed approximately 18', consisting of buff to light grayish-brown and predominantly microcrystalline dolomite, exhibiting poor to fair observable rouggy and intercrystalline porosity. Euhedral crystals were noted on concave surfaces, which suggests the probability of good rouggy porosity, which is substantiated by the 1-2 minute/foot drilling break we encountered through this interval. No sample shows were observed, probably due to the high gravity of the Desert Creek oil and the intense flushing of the heavy drilling mud. Abundant black dead bitumen was noted in filling pore space. A 55-unit mud gas increase was noted.

Conclusion: Zone of treat economic interest. The good porosities and mud gas shows make this zone a potentially economically significant one.

The Akah was picked at the base of a very dark grayish-brown black calcareous and carbonaceous shale and at the top of a buff to light brown very fine to occasionally medium crystalline and clean dolomite exhibiting fair to rarely good intercrystalline porosity. A 230-unit total mud gas increase was noted from 5802'-5805' in a buff to light brown earthy and silty dolomite, with poor observable porosity.

Conclusion: Zone of some economic interest. The large mud gas show mentioned above suggests the need to scrutinize this interval on the E-logs to determine the significance of this hydrocarbon show, if any.

The Paradox salt was encountered at 5819', which we drilled 3 feet into for a total depth of 5822'.

Lithologic Descriptions

Drilling with water; sample quality poor to very poor

- 4000-4010 70% Shale red-orange, pale green, medium lavendar, blocky, some sub-waxy, very silty and grading to siltstone in parts, some slightly calcareous, firm, slightly to very micromicaceous in parts, occasionally sandy, minor variable shale, minor pyritic
 - Sandstone predominantly very fine to medium, unconsolidated quartz grains; clear to translucent, occasionally light orange, angular to sub-rounded; occasionally red-orange very fine to fine grain, consolidated sand with clay cement, some calcareous, moderately sorted, porosity uncertain, some tight, no shows, fluorescence, odor or cuts Trace limestone light brown, some light orange, microcrystalline, firm to very firm, no shows, fluorescence, cuts or odors
- 4010-4020 80% Shale as above
 20% Sandstone as above
 Trace limestone as above
- 4020=4030 70% Shale as above, slightly more abundant pale green shale with pyritic inclusions than above, some with abundant biotitic flakes
 - 30% Sandstone as above, more abundant very fine to fine grain consolidated argillaceous sand than above Light trace limestone as above, trace chert
- 4030-4040 60% Shale as above, green, gray to light gray in parts, some very sandy pale green shale
 - 30% Sandstone as above, minor pale green, very fine grain consolidated sand with clay and calcareous cement
 - 10% <u>Limestone</u> as above, influx of minor white and light orange chalky limestone
- 4040-4050 70% Shale as above.

 30% Sandstone as above, occasional well-rounded, unconsolidated quartz grains

 Light trace limestone
- 4050-4060 100% Shale reddish-orange, pale green, some buff and lavendar, some blocky, some sub-waxy, firm, occasionally silty to very silty and sandy, slightly micromicaceous in part, occasionally slightly calcareous

 Trace sandstone

 Trace limestone

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4060-4070	100%	Shale - as above, more abundant pale green to green-gray shale than above, some slightly micropyritic Trace limestone
4070-4080	60% 30 %	Shale - as above Sandstone - predominantly very fine to medium unconsolidated quartzitic grains, clear to translucent, light orange in parts, angular to subrounded, occasionally reddish-orange, very fine to fine grained consolidated sand with clay cement, marly white calcareous consolidated sand, moderately sorted porosity uncertain, some tight, occasionally cherty, no shows, fluorescence, cuts, or odor Limestone - white, occasionally light orange, light to medium gray-brown in parts, predominantly earthy to chalky, microcrystalline in parts, soft to very firm, tight, no shows, cuts, fluorescence or odor
	10%	
TOP HONAKER	TRAIL	
Samples ver	y fine	in size; probably due to dull bit; abundant cavings
4080-4090	50%	Shale - as above, occasionally marly, grading to argillaceous
	30%	limestone <u>Limestone</u> - buff to light brown, white in parts, micro- crystalline, earthy to chalky in parts, minor cryptocrystalline, soft to very firm, minor bioclastic, tight, no shows,
	20%	fluorescence, cuts or odor <u>Sandstone</u> - as above, predominantly fine to medium unconsolitated quartzitic grains, minor medium to coarse grains, some rounded to well rounded.
4090-4100	30% 30% 40%	Shale - as above Sandstone - as above Limestone - as above, fairly abundant bioclastic, occasionally oolitic
4100-4110	50%	Shale - as above, predominantly reddish-orange and pale
	10% 40%	green to gray-green Sandstone - as above Limestone - as above, buff to white, light brown in parts, rare cherty fragments
4110-4120	20% 30% 50%	Shale - as above Sandstone - as above Limestone - as above, abundant colites, becoming an colitic limestone

Shale - reddish-orange, green-gray, blocky, sub-waxy in 40% 4120-4130 part, silty to very silty and grading to siltstone in places, occasionally slight calcite with-some maristone, marly green-gray shale is micropyritic, firm Sandstone - predominantly very firm to medium unconsolidated quartz grain; clear to translucent, occasionally light orange, angular to sub-rounded, some rounded, poor to moderately sorted, cherty, porosity uncertain, no shows, fluorescence, cuts or odors 50% Limestone - buff to white, occasionally light brown, very oolitic, microcrystalline in parts, minor cryptocrystalline and chalky limestone, firm, some soft, trace bioclastic, tight, no shows, fluorescence, cuts or odors 4130-4140 40% Shale - as above 10% Sandstone - as above Limestone - as above, minor light to medium limestone 50% 50% 4140-4150 Shale - as above 10% Sandstone - as above Limestone - as above 40% 30% 4150-4160 Shale - as above 10% Sandstone - as above 60% Limestone - as above 40% 4160-4170 Shale - as above 20% Sandstone - as above <u>Limestone</u> - as above 40% Shale - as above, influx of fairly abundant medium to dark 4170-4180 40% gray and occasionally black sub-fissile micromicaceous shale 40% Limestone - as above, minor oolite Sandstone - as above, minor residual calcareous cement 20% Limestone - buff to light brown, buff to white in parts, crypto-4180-4190 30% crystalline to microcrystalline, minor earthy, trace oolite, firm to very firm in parts, tight, no shows, fluorescence, odors or cuts Sandstone - predominantly fine to medium uncolidated quartz grains, some very fine grain; clear to translucent, occasionally light orange, angular to sub-rounded, occasionally well-rounded, moderately sorted, minor residual calcareous and clay cement, porosity uncertain, no shows, fluorescence, cuts or odors Shale - reddish-orange, green-gray; medium to dark gray, blocky 40% minor sub-waxy, firm, some silty and slightly micromicaceous, rarely slightly calcareous 4190-4200 30% Shale - as above 10% Sandstone - as above 60% Limestone - as above, influx of light to medium brown limestone, trace bioclastic

4200-4210	30% 10% 60%	
4210-4220	20% 80%	Shale - as above Limestone - buff to light brown, occasionally medium brown, microcrystalline, occasionally cryptocrystalline, slightly dolomitic, firm, rarely micropyritic, tight, no shows, fluorescence, cuts or odors
4220-4230	40% 60%	Shale - as above, minor reddish-brown micromicaceous shale Limestone - as above, trace orange chert Light trace sandstone
4230-4240	50% 50%	Shale - as above Limestone - as above Trace sandstone
4240-4250	20% 80%	Shale - as above, marly in part Limestone - as above, occasionally earthy and slightly argillaceous, some medium to dark gray very argillaceous limestone grading to marlstone, slightly micaceous in parts
4250-4260		Shale - as above, some buff, very sandy shale Limestone - as above, minor earthy to chalky
4260-4270	70% 30%	Shale - medium brown, reddish-orange, minor pale green, blocky rarely sub-waxy, abundant very micromicaceous shale, firm some slightly calcareous, occasionally sandy and micropyritic Limestone - as above, rarely fine to medium crystalline Light trace sandstone, predominantly fine to medium unconsolidated quartz grains, some very fine consolidated sand with calcareous cement, trace glauconitic
4270-4280	70% 30%	Shale - as above, occasionally silty Limestone - as above, occasional light orange and light brown chert fragments, slightly more earthy to chalky than above Light trace sandstone as above
4280-4290	80% 20%	Shale - as above, silty to very silty and occasionally grading to siltstone Limestone - as above Light trace sandstone
4290-4300	60% 20% 20%	Shale - as above, predominantly reddish-orange, green-gray in parts, some medium brown shale as above Limestone - buff to light brown, medium brown, microcrystalline, earthy to chalky, occasionally fine crystalline, some very argillaceous and sandy, firm, tight, no shows, fluorescence, cuts or odors Sandstone - buff, salt and pepper in parts, very fine grain, sub-angular to sub-rounded, predominantly clay cement, occasionally calcareous, slightly cherty, trace glauconite, no visible porosity, no shows, fluorescence, cuts or odors
4300-4310	40% 40% 20%	Shale - as above, some slightly calcareous Limestone - as above Sandstone - as above, very calcareous in parts and grading to a sandy limestone

4310-4320 80% Limestone - buff to white, light brown, cryptocrystalline to microcrystalline, some earthy, soft to firm, very clean, no visible porosity, tight, no shows, fluorescence, odors or cuts Shale - reddish-orange, occasionally medium gray and medium 20% brown, blocky, slightly calcareous in parts, firm, occasionally micromicaceous Limestone - as above, becoming light to medium brown 4320-4330 70% Shale - as above, influx of medium to dark gray and very 30% micromicaceous shale 70% Limestone - as above 4330-4340 30% Shale - as above Limestone - as above, rare medium to dark brown 70% 4340-4350 30% Shale - as above Limestone - as above, some fine to medium cryptocrystalline 40% 4350-4360 Shale - as above, predominantly reddish-orange, green-gray 50% and medium to dark gray in parts Sandstone - buff, very fine to fine grained, occasionally medium 10% grained, sub-angular to sub-rounded, predominantly unconsolidated, some cemented with calcite, slightly cherty, friable, trace poorly intergranulated porosity, tight, no shows, fluorescence, odors or cuts Sandstone - as above, becoming predominantly consolidated, 4360-4370 40% trace glauconitic, occasional biotite flakes, friable to firm, occasional medium to coarse unconsolidated grain 50% Shale - reddish-orange, medium brown, medium to dark gray in part, blocky, some very micromicaceous, slightly calcareous in parts, minor marly shale, some silty Limestone - light brown, buff, occasional medium brown, microcrystalline, earthy to chalky, soft to firm, some sandy and argillaceous in parts, tight, no shows, fluorescence, odors or cuts Abundant pipe dope 4370-4380 60% Shale - as above

4370-4380 60% Shale - as above
Limestone - as above, becmoming predominantly light brown
microcrystalline, some chalky
Trace sandstone, as above

4380-4390 90% Shale - reddish-orange, green-gray, occasionally reddish-brown
and medium brown, blocky, some sub-waxy, slightly calcareous,
some marly, slight to occasional micromicaceous, some silty,
firm

10% Sandstone - as above
Light trace limestone, as above, predominantly chalky

60% Sandstone - buff, very fine to fine grain, sub-angular, to 4390-4400 sub-rounded, calcareous cement, friable, well sorted occasionally slightly argillaceous, slightly cherty, occasional unconsolidated fine to medium quartz grains, trace glauconitic, no visible porosity, no shows, fluorescence, cuts or odors Shale - as above 30% Limestone - as above 10% Shale - as above, predominantly reddish-orange and 40% 4400-4410 green-gray 40% Limestone - as above Sandstone - as above 20% 30% Shale - as above, some medium to dark gray-brown and marly, 4410-4420 grading to argillaceous limestone 70% Limestone - buff to white, light brown, rarely medium brown, cryptocrystalline to microcrystalline, earthy in parts, some chalky, firm, some soft, occasional chert fragments, some very argillaceous and grading to calcareous shale, tight, no shows, fluorescence, odors or cuts Light trace sandstone, predominantly fine to medium unconsolidated quartz grains Limestone - as above, abundant medium to dark gray-brown 4420-4430 70% limestone, grading to calcareous shale in parts, micromicaceous Shale - as above, abundant medium to dark brown shale grading 30% to argillaceous limestone in part <u>Limestone</u> - as above, earthy to chalky in parts, occasionally 4430-4440 50% sandy Shale - as above, some sandy 30% Sandstone - buff to white, very fine to fine grain, occasional medium green, sub-angular to sub-rounded, silicaceous and clay cement, some calcareous, slightly cherty, trace glauconitic, firm occasionally friable, no visible porosity, no shows, fluorescence, odors or cuts Shale - reddish-orange, green-gray, some red-brown and 4440-4450 60% medium to dark gray-brown, blocky, some sub-waxy, occasionally marly, some silty and micromicaceous, firm occasionally sandy in parts Limestone - as above 30% 10% Sandstone - as above Shale - as above, becoming predominantly medium to dark 4450-4460 50% brown and very micromicaceous, abundant biotitic flakes Sandstone - as above, abundant fine to medium unconsolidated grain 20% Limestone - as above 4460-4470 60% Shale - as above 30% Sandstone - as above Limestone - as above 10%

4470-4480	80% 10%	Shale - as above, medium to dark brown, reddish-orange green-gray Sandstone - as above
*		Limestone - as above
4480-4490	10%	Shale - as above Sandstone - as above Limestone - as above
4490-4500		Shale - as above Sandstone - as above Light trace limestone, as above
4500-4510	100%	Shale - as above Light trace sandstone, as above Light trace limestone, as above
4510-4520	30%	Sandstone - light to medium brown, butfin part, very fine to fine grain, sub-angular to sub-rounded, calcareous and clay cement, medium to well sorted, some fine to medium unconsolidated quartz grains, firable to firm, slightly cherty, no visible porosity, no shows, fluorescence, odors or cuts Light trace limestone
4520-4530	90%	Shale - reddish-orange, green-gray, medium to dark brown, blocky occasionally silty, some marly, occasionally micromicaceous, rarely sandy Sandstone - as above Light trace limestone, buff to white, occasionally light gray, earthy to chalky, some microcrystalline, tight, no shows, fluorescence, odors or cuts
4530-4540	70% 20% 10%	Shale - as above Sandstone - as above Limestone - as above, trace chert fragments
4540-4550	90% 10%	Light trace sandstone
4550-4560	60% 40%	blocky, very micromicaceous in parts, some silty and sandy, medium firm to firm, rarely marly
4560-4570	40% 60%	

4570-4580	40% 60¢	<u>Limestone</u> - as above <u>Shale</u> - as above Light trace sandstone
4580-4590		Limestone - as above Shale - as above Sandstone - buff to light brown, very fine to fine grain, sub-angular to sub-rounded, calcareous and clay cement, slightly to very argillaceous, firable to firm, slightly cherty, occasionally unconsolidated fine to medium quartz grains
4590-4600	40%	Sandstone - as above, predominantly fine to medium unconsolidated angular to sub-rounded quartz grains, residual pale green clay cement Shale - as above Limestone - as above
4600-4610	30%	Sandstone - as above Shale - as above Limestone - as above
4610-4620	40% 50% 10%	Sandstone - light gray, buff, very fine grain, fine grain in parts, sub-angular to sub-rounded, calcareous and clay cement, friable, slightly cherty, trace glauconitic, occasionally fine to medium unconsolidated quartz grains, trace poorly intergranulated porosity, tight, no shows, fluorescence, odors or cuts Shale - light to medium gray, reddish-orange, occasionally green-gray, blocky, slightly calcareous, occasionally marly, slightly to very micromicaceous, some silty, firm Limestone - buff to white, light brown, microcrystalline, earthy, firm, tight, no shows, fluorescence, odors or cuts
4620-4620	50% 20% 30%	Limestone - as above, buff to light gray in parts, occasionally chalky Shale - as above, predominantly light to medium gray Sandstone - as above, more abundant fine to medium unconsolidated quartz grains than above
4630-4640	70% 20% 10%	<u>Limestone</u> - as above <u>Shale</u> - as above <u>Sandstone</u> - as above
4640-4650	100%	Shale - reddish-orange, green-gray, some varigated, blocky, slightly, calcareous in parts, some slightly silty, firm, rarely sandy grained Light trace limestone
4650-4660	40% 30% 30%	Sandstone - predominantly fine to medium unconsolidated quartz grains; clear to translucent, occasionally light orange, sub-angular to occasionally rounded, residual pale green clay cement Shale - as above, medium gray in parts Limestone - light to occasionally medium brown, some buff, microcrystalline, minor cryptocrystalline, firm no visible porosity, tight, no shows, fluorescence, odors or cuts

4660-4670	100%	Shale - red, orange, green-gray, reddish-brown in parts, blocky, rarely slightly micromicaceous, some sub-waxy and slightly sandy, slightly micropyritic, slightly calcareous in parts
4670-4680	90%	Shale - as above, more abundant green-gray and above, some
	10%	Sandstone - predominantly fine to medium unconsolidated quartz grains; clear to translucent, sub-angular to sub-rounded, minor residual clay cement, porosity uncertain, no shows, fluorescence, odors or cuts
4680-4690	50%	Shale - as above, more abundant light to medium gray than above
	40%	<u>Limestone</u> - buff to light brown, occasionally light gray, microcrystalline, some fine crystalline and cryptocrystalline, firm, no visible porosity, tight, no shows, fluorescence, odors or cuts
	10%	
4690-4700	50%	<u>Limestone</u> - as above, light to medium brown in parts, slightly argillaceous in parts
	30%	Shale - as above, some very microcaceous and medium to dark brown
	20%	
4700-4710		Shale - reddish-orange, medum to dark gray-brown and very micromicaceous, blocky, firm, some silty and occasionally sandy, occasionally slightly calcareous Limestone - as above Sandstone - as above
4710-4720		Shale - as above Limestone - as above, light orange in parts Sandstone - as above, minor consolidated sand
4720-4730	50% 20% 30%	Shale - as above Limestone - as above Sandstone - as above, influx of some reddish-orange very fine to fine argillaceous sand, angular to sub-rounded, well sorted
4730-4740	60% 30% 10%	Shale - as above Limestone - light brown, light gray, some buff, microcrystalline occasionally fine to medium crystalline, firm, no visible porosity, no shows, fluorescence, odors or cuts Sandstone - predominantly fine to medium unconsolidated quartz grains; clear to translucent, occasionally light orange, sub-angular to sub-rounded, minor residual clay cement
4740-4750	70% 30%	Shale - reddish-orange, medium to dark gray-brown and very micromicaceous, some green-gray, blocky occasionally silty and slightly micromicaceous, occasionally very abundant biotite flakes, some slightly calcareous Limestone - as above, occasionally light to medium brown, some white and earthy to chalky limestone Light trace sandstone

	4750-4760	80% 20%	Shale - as above Limestone - as above, trace colitic (cavings?) Light trace sandstone
	4760-4770	60%	Shale - as above, minor apple green shale, sub-waxy in parts
		30% 10%	
	4770-4780	10%	Shale - as above, some very sandy shale, grading to argillaceous sandstone in parts, occasionally slight to very silty Limestone - as above Sandstone - as above
		• • •	Salids Tolle - as above
	Top Paradox	<u>×</u>	
	4780-4790	20%	Shale - reddish-orange, green-gray, influx of medium to dark gray and slightly calcareous shale, blocky, some occasionally silty and sandy, occasionally sub-waxy, micropyritic in parts Limestone - as above Sandstone - as above
	4790-4800	70% 30%	Shale - reddish-orange, medium to dark gray-brown in parts, occasionally green-gray, blocky, some very calcareous and grading to argillaceous limestone, firm, occasionally silty, some slightly micromicaceous Limestone - medium to dark brown, occasionally light brown, microcrystalline, some very argillaceous and grading to a calcareous shale, firm to occasionally very firm, no visible porosity, no shows, fluorescence odors or cuts
•	4800-4810	60% 40%	<u>Limestone</u> - as above, medium to dark gray brown and very argillaceous as above, slightly micromicaceous <u>Shale</u> - as above
	4810-4820	•	Limestone - as above Shale - as above
	4820-4830	90% -	<u>Limestone</u> -buff to light brown, minor medium to dark gray brown argillaceous limestone as above, cryptocrystalline to microcrystalline, occasionally earthy, firm to very firm, some soft, occasionally brittle, dense in parts, clean, tight, no shows, fluorescence, odors or cuts <u>Shale</u> - as above
	4830-4840	60% 40%	Limestone - medium to dark gray brown, some buff to light brown as above, microcrystalline, predominantly very argillaceous and grading to calcareous shale, slightly micromicaceous, moderately soft to firm, tight, no shows, fluorescence, odors or cuts Shale - as above, predominantly reddish-orange

4840-4850	70% 30%	<u>Limestone</u> - as above <u>Shale</u> - as above
4850-4860	60% 40%	<u>Limestone</u> - as above <u>Shale</u> - as above
4860-4870	90%	<u>Limestone</u> - light brown, buff in parts, some medium to dark brown, argillaceous, as above, cryptocrystalline to microcrystalline, some earthy, trace microcrystalline, moderately soft to occasionally very firm, dense in parts, tight, no shows, fluorescence, odors, cuts
	10%	Shale - predominantly reddish-orange, occasionally medium to dark gray-brown, grading to argillaceous limestone, blocky, firm, occasionally silty and slightly micromicaceous
4870-4880	100%	<u>Limestone</u> - as above / Trace shale - as above
4880-4890	100%	<u>Limestone</u> - as above, slightly more argillaceous than above <u>Light trace</u> shale
4890-4900	90%	<u>Limestone</u> - as above, light brown and medium to dark gray- brown, as above <u>Shale</u> - as above
4900-4910	30% 40%	<u>Limestone</u> - as above <u>Shale</u> - as above, occasionally reddish-brown, medium brown, very micromicaceous
	30%	Sandstone - light green-gray, light brown, very fine grained, occasionally fine grained, subangular, calcareous, clay cement, friable, slightly cherty, glauconitic in parts, occasional biotite flakes, fairly abundant fine to medium unconsolidated quartzitic grains, no visible porosity, porosity uncertain, no shows, cuts, fluorescence, or odor
4910-4920	80% 10%	Sandstone - predominantly fine to medium unconsolidated quartz grains, occasionally very fine grained, clear to translucent, light orange, angular to subrounded, moderate to well sorted, residual green-gray clay cement, minor consolidated sand, porosity uncertain, no shows, cuts, fluorescence, odor Limestone - as above, predominantly light brown, medium brown in parts, occasional chert fragments Shale - as above
4920-4930	60% 20% 20%	Sandstone - as above, minor medium to coarse rounded grains Limestone - as above, light to medium brown, some buff & earthy Shale - reddish-orange, medium brown, very micromicaceous, some green-gray, blocky, some marly, occasionally silty, firm
4930-4940	90%	Shale - as above, more abundant medium brown shale than above, some clightly calcareous Limestone - as above Light trace sandstone

4940-4950		Shale - as above, becoming predominantly medium brown and very micromicaceous. abundant green-gray shale also, reddish-orange in parts Limestone - as above Light trace sandstone
4950-4960		Shale - as above Light trace limestone as above, predominantly buff to white and earthy Light trace sandstone
4960-4970	70% 30%	Limestone - buff to light brown, some white, cryptocrystalline, to microcrystalline, occasionally earthy to chalky, soft to firm, some dense, rarely slightly argillaceous, no visible porosity, no shows, fluorescence, odors or cuts Shale - as above, predominantly reddish-orange and green-gray
4970 – 4980	•	<u>Limestone</u> - as above, occasionally light to medium brown <u>Shale</u> - as above, some green-gray very sandy shale
4980-4990	100%	Shale - predominantly medium to dark brown and very micromicaceous, some reddish-orange and green-gnay, blocky, occasionally sandy, some with abundant biotitie flakes, moderately soft to firm, calcareous Light trace limestone as above Light trace sandstone, predominantly fine to medium quartz grain
4990-5000	70% 30%	<u>Limestone</u> - as above, some medium to dark gray-brown and very argillaceous limestone, grading to calcareous shale in parts, occasional cherty fragments <u>Shale</u> - predominantly reddish-orange and green-gray, some medium to dark brown shale as above
5000-5010	100%	<u>Limestone</u> - predominantly light brown, occasionally medium brown and slightly argillaceous, some buff to white, cryptocrystalline to microcrystalline, some earthy to chalky, firm, some soft, dense, tight, no shows, fluorescence, odors or cuts Light trace shale, as above
5010-5020	80% 20%	<u>Limestone</u> - as above, more abundant medium to dark gray-brown argillaceous limestone than above, occasionally clear cherty fragments . <u>Shale</u> - as above
5020-5030	60% 40%	<u>Limestone</u> - as above, fairly abundant clear to yellow chert fragments <u>Shale</u> - as above
5030-5040	80%	<u>Limestone</u> - as above, medium to dark gray-brown and very argillaceous, buff to light brown, abundant chert as above, some dark brown chert fragments <u>Shale</u> - reddish-orange, green-gray, occasionally medium to dark gray-brown and very calcareous, grading to argillaceous limestone in parts, blocky, firm

5040-5050	** •	Limestone - as above, becoming predominantly light brown and cryptocrystalline to microcrystalline, occasionally buff and earthy, some medium to dark gray-brown limestone as above, rarely firm to medium crystalline, minor chert fragments Shale - as above
5050-5060	90% 10%	<u>Limestone</u> - as above <u>Shale</u> - as above
5060-5070	80% 20%	<u>Limestone</u> - as above <u>Shale</u> - as above
5070-5080	80% 20%	<u>Limestone</u> - as above, buff to white and more earthy to chalky than above Shale - as above
5080-5090	100%	Limestone - light brown, minor buff and medium to dark gray-brown limestone, cryptocrystalline to microcrystalline, some earthy to chalky, predominantly firm and dense, some moderately soft, occasionally medium to dark brown chert fragments, tight, no shows, fluorescence, odor or cuts Light trace shale, as above
5090-5100	80% 20%	Limestone - as above, influx of very abundant medium to dark gray-brown and very argillaceous limestone, grading to a calcareous shale, some light gray sitty limestone Shale - as above, predominantly reddish-orange and medium to dark gray calcareous shale
5100-5110	80% 20%	<u>Limestone</u> - as above, predominantly medium to dark gray-brown and very argillaceous <u>Shale</u> - as above, occasionally green-gray
5110-5120	70% 30%	<u>Limestone</u> - as above <u>Shale</u> - as above, more green-gray shale than above, sub-waxy in parts
5120-5130	80% 20%	<u>Limestone</u> - as above, rarely oolitic (cavings?) <u>Shale</u> - as above
5130-5140	60% 40%	<u>Limestone</u> - as above, occasionally buff to white and chalky <u>Shale</u> - as above, some sandy green-gray shale
5140-5150	60% 40%	<u>Limestone</u> - as above <u>Shale</u> - as above
5150-5160		Limestone - light brown, medium to dark gray-brown, occasionally buff, light gray, microcrystalline, occasionally cryptocrystalline and earthy, abundant very argillaceous limestone grading to calcareous shale in parts, firm, occasionally dense, slightly micromicaceous, tight, no shows, fluorescence, odors, or cuts
	20%	Shale - reddish-orange, green-gray, occasionally medium to dark gray-brown and very calcareous, grading to argillaceous limestone in parts, blocky, sub-waxy in parts, some silty

5160-5170 80% Limestone - as above, predominantly medium to dark gray-brown and very argillaceous, occasionally silty 20% Shale - as above 5170-5180 80% Limestone - as above, occasionally medium to dark brown cryptocrystalline limestone, fairly abundant dark brown chert fragments, no visible porosity, no shows, fluorescence, odors or cuts Shale - as above, more abundant medium to dark gray-brown and calcareous shale than above, minor dark gray-brown to black 20% Limestone - buff to white, light brown, minor medium to dark 5180-5190 80% gray-brown argillaceous limestone, cryptocrystalline to microcrystalline, earthy to chalky, moderately soft to firm occasional light brown chert fragments, dense in parts, no visible porosity, no shows, fluorescence, odors or cuts Shale - as above, predominantly reddish-orange and green-gray 20% Limestone - as above, becoming medium to occasionally gray-brown 80% 5190-5200 and very argillaceous, some light gray, trace mesocrystalline 20% Shale - as above 5200-5210 100% Limestone - predominantly light brown, buff to occasionally white, minor medium to dark gray-brown as above, cryptocrystalline to microcrystalline, occasionally earthy, minor firm to medium crystalline, moderately soft to very firm, some dense, minor sandy limestone, trace bioclastic, tight, no shows, fluorescence, odors or cuts Light trace shale DST #1 and #2 Paradox 5145'-5201' Fairly abundant pipe dope 5210-5220 90% Limestone - predominantly light to medium gray-brown, occasionally dark gray-brown, microcrystalline, earthy, very argillaceous, grading to calcareous shale, moderately soft to firm, tight, no shows, fluorescence, odors or cuts 10% Shale - predominantly reddish-orange cavings Limestone - as above, more microcrystalline than above, 5220-5230 100% earthy to sub-chalky in parts Light trace shale, as above Limestone - as above, becoming predominantly medium to dark 5230-5240 100% gray-brown, light gray and silty in parts, some slightly micromicaceous Light trace shale, as above 5240-5250 90% Limestone - as above, more abundant light gray and silty limestone than above; some buff to white fine to medium crystalline

limestone exhibiting poor to occasionally fair intercrystalline porosity, slightly silty, no shows, fluorescence, odors or cuts Shale - predominantly reddish-orange cavings, minor reddish-brown

10%

shale

5250-5260 90% Limestone - medium to dark brown, buff to light gray, rarely buff to white, predominantly microcrystalline and very argillaceous, light gray earthy and slightly silty limestone in parts, minor buff to white porosity fine to medium crystalline as above, rarely sandy limestone, moderately soft to firm, no shows, fluorescence, odors or cuts

10% Shale - as above
Light trace sandstone, buff to light brown, very fine to fine
grains, predominantly clay cement, slightly calcareous,
friable, micromicaceous, tight, no shows, fluorescence, odors or
cuts

5260-5270 90% Limestone - as above

10% Shale - as above
Light trace sandstone, as above, some with abundant biotitie flakes, slightly cherty in parts, rarely firm with minor silicaceous and calcareous cement

5270-5280 100% Limestone - abundant light gray earthy and slightly silty limestone; some white earthy limestone, occasionally white and gray mottled chalky limestone Light trace shale, as above Light trace sandstone, as above

Limestone - light gray to light gray-brown; occasionally buff to light brown microcrystalline and firm to medium crystalline limestone, predominantly earthy and silty and very argillaceous microcrystalline limestone, moderately soft to firm, rarely slightly micromicaceous, no visible porosity, no shows, fluorescence, odors or cuts Light trace shale, as above Trace sandstone, as above

5290-5300 100% <u>Limestone</u> - as above, fairly abundant buff to white fine to medium crystalline and occasional earthy to chalky limestone Light trace sandstone, as above Trace shale

5300-5310 100% <u>Limestone</u> - as above <u>Light trace</u> sandstone

Limestone - medium to dark gray-brown very argillaceous

limestone and buff to light gray earthy to chalky and slightly

silty limestone, minor light gray-brown fine to medium

crystalline limestone; moderately soft to firm, slightly

micromicaceous in parts, tight, no shows, fluorescence, odors

or cuts

Limestone - as above, predominantly medium to dark gray-brown limestone which is grading to a calcareous shale as above, light gray earthy to chalky and slightly silty in parts, minor light brown microcrystalline limestone Light trace shale, predominantly reddish-orange cavings

5330-5340 100% Limestone - as above, more abundant light brown microcrystalline limestone, minor light to dark brown chert fragments
Light trace shale, as above
Trace sandstone, white, very fine grained, siliceous and clay cement, firm

5340-5350 100% <u>Limestone</u> - as above, slightly more firm to medium crystalline limestone, trace very dark brown cryptocrystalline limestone, trace bioclastic Light trace shale, as above

Abundant uphole cavings

5350-5360 60% Limestone - as above, some light to medium brown dolomitic cryptocrystalline limestone, occasionally light pink to light orange argillaceous limestone, abundant dark brown chert
40% Shale - reddish-orange, light orange, some medium brown, blocky, some calcareous to very calcareous and grading to an argillaceous limestone, firm, some silty, occasionally slightly to very micromicaceous

Abundant uphole cavings

5360-5370 60% Shale - as above 40% Limestone - as above, rarely dolomitic limestone, minor chert

5370-5380 50% <u>Limestone</u> - as above, fairly abundant light gray micro-crystalline and fine to medium crystalline limestone, chert fragments

50% Shale - as above, some occasionally sandy

Abundant LCM

5390-5400 80% Limestone - as above, minor very sandy limestone, grading to a calcareous siltstone, slightly to very micromicaceous in parts

20% Shale - as above, occasionally reddish-brown and very

micromicaceous

5400-5410 80% Limestone - as above, more medium to dark gray-brown and argillaceous limestone than above, minor buff to white limestone, trace bioclastic, occasionally clear, dark brown cherty fragments

20% Shale - as above, minor green-gray dense shale

Abundant Cavings (Top Hovenweep Shale)

5410-5420 60% Shale - as above; influx of dark to very dark gray-brown calcareous to very calcareous shale, grading to a very argillaceous limestone, carbonaceous, slightly micromicaceous and silty, blocky, firm; some brittle; predominantly reddishorange shale

40% <u>Limestone</u> - as above, predominantly medium to dark gray brown and grading to a calcareous shale

Abundant cavings

5420-5430 60% Shale - as above, dark to very dark gray-brown and reddish-orange, becoming very dark gray-brown, very carbonaceous in parts

40% Limestone - as above, abundant buff to light brown microcry
stalline and fine to medium crystalline limestone

Abundant cavings

5430-5440 70% Shale - as above, sub-fissile in parts, occasionally black carbonaceous material

30% Limestone - predominantly buff to light brown, microcrystalline, fine to medium crystalline, firm, hard in parts, tight, no shows, fluorescence, odors or cuts

Trace coal, black vitreous lustre, brittle

Abundant cavings Top Lower Upper Ismay (Base and Shale)

Anhydrite - white, microcrystalline, chalky, occasionally fibrous, soft to moderately firm

50% Limestone - buff to light brown, occasionally medium brown, mottled, fine to medium crystalline in parts, some slightly argillaceous, moderately soft to very firm, some dense, occasional anhydrite inclusion, tight, no shows, fluorescence odor or cuts

40% Shale - as above

Limestone - buff to light brown, white, light gray in parts,
predominantly earthy, fine to medium crystalline and occasionally
microcrystalline in parts, moderately soft to occasionally firm,
predominantly clean, minor slightly argillaceous limestone,
no visible porosity, no shows, fluorescence, odor or cuts

20% Shale - reddish-orange and medium to very dark gray-brown as
above
Trace anhydrite

5460-5470 80% <u>Limestone</u> - as above, rarely chalky
20% <u>Shale</u> - as above, predominantly reddish-orange cavings
Trace anhydrite

5470-5480 70% <u>Limestone</u> - as above, occasionally dead oil stained, occasionally medium to dark gray-brown and very argillaceous, grading to calcareous shale

30% <u>Shale</u> - as above, occasionally some dark to very dark gray-brown

calcareous and carbonaceous shale, sub-fissile in parts, some slightly silty, slightly micromicaceous

Trace anhydrite

- 5480-5490 20% Dolomite light brown, buff to light gray, very fine crystalline, earthy to chalky in parts, moderately firm, slightly argillaceous, silty, slightly limy in parts, trace poor intercrystalline porosity, no shows, fluorescence, odors or cuts
 - 60% Limestone as above, occasional slight dolomite, some chalky
 - 20% Shale as above Trace anhydrite
- 5490-5500 40% Dolomite as above, abundant white earthy to chalky dolomite, very argillaceous in parts, some slight to very calcareous, firm to hard in parts
 - 40% <u>Limestone</u> as above, becoming very fine crystalline and slight to very dolomitic in parts, some white to chalky limestone
 - 20% Shale as above

Sample quality is greatly improved

Top Lower Ismay Shale

- 5500-5510 60% Shale moderate to occasional very dark gray-brown, occasionally reddish-orange, blocky, sub-fissile in parts, slight to very calcareous, slightly silty and micropyritic, grading to argillaceous limestone in parts, slightly carbonaceous, firm
 - 30% <u>Limestone</u> as above, some medium to dark gray-brown and very argillaceous shale
 - 10% Dolomite as above

Abundant LCM

- 5510-5520 60% Shale as above, slightly more carbonaceous material than above, rare bioclastic
 - 30% Limestone as above, trace bioclastic
 - 10% Dolomite as above

Abundant LCM

5520-5530 90% Shale - as above predominantly dark to very dark and very argillaceous as above, slightly micromicaceous in parts

10% Limestone - as above

Some LCM

5530-5540 100% Shale - dark to very dark gray-brown, occasionally medium gray-brown, blocky, occasionally sub-fissile, slight to occasionally very calcareous, slightly silty and micropyritic, rare grading to a very argillaceous limestone, carbonaceous, firm, slightly micromicaceous in parts, some very dark orange cavings

Light trace limestone

5540-5550 90% Shale - as above 10% Limestone - as above 5550-5560 90% Shale - as above 10% Limestone - as above DST #3 Lower Upper Ismay 54681-5552 5560-5570 100% Shale - as above, minor gray-green shale Light trace limestone 5570-5580 100% Shale - as above Light trace limestone 5580-5590 80% <u>Limestone</u> - light gray, some buff, earthy to sub-chalky, very argillaceous and silty, grading to a calcareous siltstone In parts, some microcrystalline, moderately soft to occasionally very firm, slightly micromicaceous in parts 20% Shale - as above Trace anhydrite - white, chalky, soft, gummy 5590-5600 70% Shale - as above 30% Limestone - as above Trace anhydrite - as above, some microcrystalline and moderately firm 5600-5610 50% Anhydrite - white, chalky, silky, occasionally crystalline, predominantly soft and gummy, some moderately firm 30% Shale - as above, very dark gray-brown to black in parts Limestone - as above, light to medium brown and cryptocrystalline to microcrystalline, some dense 5610-5620 30% Anhydrite - as above Limestone - light to medium brown, buff to light gray in 60% parts, mottled, earthy, microcrystalline, minor fime to medium crystalline, slight to moderately argillaceous, slightly silty, minor fractures with black, dead bitumen on faces, moderately firm to firm, tight, no shows, fluorescence, odor or cuts 10% Shale - as above Top Lower Ismay Porosity Limestone - buff, light gray to medium gray-brown, earthy 5620-5630 80% and very fine crystalline, minor fine to medium crystalline, slight to very dolomitic, some grading to a limy dolomite, some argillaceous, friable to firm, trace dead oil stain, minor 7%+9% intercrystalline porosity, some tight, no shows, fluorescence, odors or cuts 10% Anhydrite - as above 10% Shale - as above Limestone - as above, becoming predominantly buff, very dolo-5630-5640 90% mitic and fine crystalline, some earthy, occasionally limy dolomite, rare argillaceous, minor porosity (9-11%), no shows, fluorescence, odors or cuts Shale - as above

Top "B" Zone Shale

5640-5650 90% Shale - dark to very dark gray-brown, occasionally medium gray-brown, blocky, rare sub-fissile, slight to very calcareous, firm, carbonaceous, occasionally slightly silty, some micropyritic, minor microtamination of limestone

10% <u>Limestone</u> - light to medium brown, occasionally buff, fine to medium crystalline, some fine crystalline and earthy, occasionally argittaceous, predominantly tight, occasionally porosity as above, no shows, fluorescence, odors or cuts

LCM

5650-5660 90% Shale - as above, very dark gray-brown to occasionally blocky, very carbonaceous in parts, very slightly micromicaceous in parts, some reddish-orange cavings

>10% <u>Limestone</u> - as above, predominantly fine crystalline

5660-5670 100% Shale - as above, more medium to dark gray-brown than above, some moderately soft Light trace limestone

5670-5680 100% Shale - as above Light trace limestone

5680-5690 100% Shale - as above Light trace limestone

Top Desert Creek

5690-5700 50% Limestone - buff, light brown, earthy, very sandy with some grading to a very calcareous very fine grained sandstone, occasionally grading to a calcareous siltstone, slightly argillaceous, slightly cherty and micromicaceous, friable to moderately firm, poorly intergranulated porosity, some tight, no shows, fluorescence, odors or cuts

50% Shale - as above

5700-5710 60% <u>Limestone</u> - as above 40% <u>Shale</u> - as above Light trace anhydrite - white, chalky, minor

Light trace anhydrite - white, chalky, minor crystalline, soft to moderately soft, gummy in parts

5710-5720 20% Anhydrite - as above

70% <u>Limestone</u> - as above, buff to light gray-brown, mottled, earthy, argillaceous and silty, some very silty, moderately soft to form, abundant anhydrite included, rare slightly micromicaceous, tight, no shows, fluorescence, odors or cuts

10% Shale - dark to very dark gray-brown, blocky, slight to very calcareous, carbonaceous, firm, occasionally silty, slightly

micromicaceous

5730-5740 TOP DESERT 0	20% 10% 40% 30%	Dolomite - buff to light gray-brown, earthy, argillaceous, silty, minor microcrystalline, moderately soft to firm, tight, no shows, fluorescence, odors, cuts Anhydrite - as above Limestone - as above Shale - as above
TOP DESERT C	MEEN PO	
5740-5750	50%	Dolomite - buff to light gray-brown, occasionally light brown, predominantly microcrystalline, earthy, silty, as above, occasionally fine crystalline, firm to hard, some dense, poor to occasionally fair varigated & intercrystalline porosity, euhedral crystals on concave surfaces indicating possibility of large vugs, some tight, some black dead bitumen infilling porosity, occasional anhydritic inclusions,
	20%	no shows, fluorescence, odors, cuts <u>Limestone</u> - as above, becoming predominantly medium brown, microcrystalline, some earthy, orange
	20%	Anhydrite - white, chalky, occasionally crystalline, soft to moderately soft, gummy
	10%	Shale - as above
5750-5760	70%	Dolomite - as above, predominantly microcrystalline, fair to good intercrystalline and vug porosity, abundant euhedral crystals indicating large vugs, fairly abundant black dead bitumen, minor bioclastic fragments with rare mother-of-pearl, some tight, trace anhydritic inclusions, no shows, cuts, odors, or fluorescence
	20% 10%	Anhydrite - as above Shale - as above, influx of very dark gray-brown to black carbonaceous shale, some dense, calcareous to very calcareous in parts Light trace limestone, as above
5760-5770	100%	Dolomite - light to occasional medium gray-brown, earthy, argillaceous, grading to a dolomitic shale in parts, occasionally microcrystalline porosity, as above, slightly silty, moderately firm to firm Trace shale Trace-limestone Trace anhydrite
5770-5780	90%	Shale - very dark gray-brown, black, blocky, carbonaceous, slightly to very calcareous, slightly silty, moderately firm, swells and falls apart in water (carbonaceous), gummy, slightly gummy, slightly micromicaceous in parts Dolomite - as above Trace limestone
		THE CONTRACTOR OF THE CONTRACT

Top Akah

- 5780-5790 60% Dolomite buff to light brown, gray-brown in parts, very fine to fine occasional microcrystalline, microcrystalline in parts, firm to hard, slightly limy in parts. clean, fair to rarely good intercrystalline porosity, some tight, some euhedral crystallines suggest possible larg vugs, minor black dead bitumen, no shows, fluorescence, cuts or odors

 40% Shale as above
- 5790-5800 70% Dolomite as above, becoming predominantly buff to light gray-brown, earthy and very silty, occasionally sandy, argillaceous, grading to a very dolomitic slitstone, slight to moderately limy in parts, slightly micromicaceous, poorly intergranulated intercrystalline porosity, no shows, fluorescence, odors or cuts
 - 30% Shale as above, trace pyrite
 Light trace limestone, buff to light brown, microcrystalline, occasionally fine to medium crystalline, firm, slightly dolomitic in parts, tight, no shows, fluorescence, odors or cuts
- 5800-5810 30% <u>Limestone</u> buff to light brown, mottled, fine to medium crystalline, sub-earthy in parts, minor microcrystalline, moderately firm to firm, trace bioclastic, tight, no shows, fluorescence, odors or cuts
 - 40% Dolomite as above
 - 30% Shale as above, predominantly very dark gray-brown to black, some medium gray-brown and slightly carbonaceous, dolomitic in parts
- 5810-5820 10% Anhydrite white, chalky, minor crystalline, soft, included in dolomite
 - 70% Dolomite as above, some buff to white, more abundant light brown microcrystalline and dense dolomite than above, trace bioclastic, occasional anhydritic inclusion
 - 20% <u>Limestone</u> as above, occasionally medium brown microcrystalline limestone Light trace shale
- 5820-5830 60% Dolomite as above, rare buff to white, no evidence of bioclastic
 - 10% <u>Limestone</u> as above, some buff to white clean limestone, slightly cherty
 - 30% Shale as above, some dolomite Light trace anhydrite

Top Salt (picked on drill rate)

- 5830-5840 20% Dolomite as above
 - 60% Shale as above, occasionally splintery, medium brown in parts
 - 20% Limestone as above Light trace anhydrite

June 18, 1981

Wexpro Company
P. O. Box 1129
Rock Springs, Wyoming 82901

RE: See Attached Sheet

Gentlemen:

In reference to above mentioned wells, considerable time has gone by since approval was obtained from this office.

This office has not received any notification of spudding. If you do not intend to drill these wells, please notify this Division. If spudding or any other activity has taken place, please send necessary forms. If you plan on drilling hhese locations at a later date, please notify as such.

Your prompt attention to the above will be greatly appreciated.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

Sandy Bates

- 1. Well No. Patterson Unit #3 Sec. 32, T. 37S, R. 25E San Juan County, Utah
- Well No. Bug #5
 Sec. 15, T. 36S, R. 26E
 San Juan County, Utah
- Well No. Bug #13
 Sec. 17, T. 36S, R. 26E
 San Juan County, Ugah
- 4. Well No. Bug #11
 Sec. 21, T. 36S, R. 26E.
 San Juan County, Utah
- Well No. Bug #9
 Sec. 18, T. 36S, R. 26E
 San Juan County, Utah

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

NAME OF COMPANY: LINGROS	
WELL NAME: Rug #9	
SECTION 18 TOWNSHIP 365 RANGE	268 COUNTY 1.D.
DRILLING CONTRACTOR Compose	
RIG #_4	
SPUDDED: DATE 10-9-01	
TIME Biockm	
How Potang:	
POTELLING WILL COMMUNICE	
DRILLING WILL COMMENCE	
REPORTED BY Paul Zubatch	
TELEPHONE #(307) 382-979/	-
10110 11	
DATE 10-9-81	SIGNED DB

Weapro

NOTICE OF SPUD

Callen Park of the Contract of
Caller: Paul Zubatch 517 Phone: OCT, 31987 Well Number: #9 Out Olive.
370
Well Number: #9 OIL OIVISION OF Location: NENE 18-365-26 FINING
Location: <u>NENE 18-365-28 Faying</u>
County: San Quan State: Utah
Lease Number: <u>U-48927</u>
Lease Expiration Date:
Unit Name (If Applicable):
Date & Time Spudded: 10-9-81 3:00 A.
Dry Hole Spudder/Rotary:
Details of Spud (Hole, Casing, Cement, etc.) $40' - 12/4''$
drlg E H20
Rotary Rig Name & Number: arapahoe Drg #4
Approximate Date Rotary Moves In:
FOLLOW WITH SUNDRY NOTICE
Call Received By: KR
Date: $10 - 9 - 81$



GAMMA RAY

API Units

Décollement Consulting, Inc.

Denver, Colorado

COMPANY **WEXPRO COMPANY:** NO. 9 WELL: BUG WELL NE, NE, Sec. 18, T365, R26E Location: San Juan Co., Utah State: 4000' 5822 ' Depth Logged From: To: 10/15/81 To: Date Logged From: 10/25/81 Geologist: M.C. Meeker

Water / LSND

GEOLOGICAL COMMENTS

DRILLIN	IG LEGEND	ENGIN	EERING LEGEND	OIL :	SHOWS — Stain Present		LE	GEND	
NB	New Bit		Core No. 1		Even staining	Use ex	clusively American S	stratagraphic Se	vice Symbols
RRB	Rerun Bit	2	Recovery 95%		Fluoresces in solvent	•••••			
DB	Diamond Bit	ו ג	Drill Stem	_	•		Conglomerate		Coal
TB	Turbo Bit	Ψ.	Test No. 1	•	Spotted staining		Sand	^^^^	Chert
CB	Core Bit				Fluoresces in solvent		Jano		Onert
DCB	Diamond Core Bit	MUDD	IATA				Siltstone		Salt
DS	Deviation Survey	٧	Viscosity	D	Dead	[=====]			
W/B	Weight on Bit	W	Weight in Ibs./gal.		Asphaltic, bitumen, etc.		Shale		Bentonite
RPM	Rotation (Rev./Min.)	WL	Filtrate in cc				Limestone	^^^^^	Siliceous
LC	Lost Circulation	FÇ	Filter Cake	0	Questionable	77777	Filliestorie	VVVV 8/2	Sinceous
NR	No Returns	CL	Chloride Content (ppm)		No fluorescence in solvent		Dolomite	米米》 为	Igneous
TG	Trip Gas	Rm	Mud Resistivity (\(\Omega\)					V V V V V	
PP	Pump Pressure	Rmf	Mud Filtrate Resistivity (Ω)				Anhydrite	• V V V V	Volcanic
1				•		III Chillian	GNIDGUM	CHI TO	Metamorabia

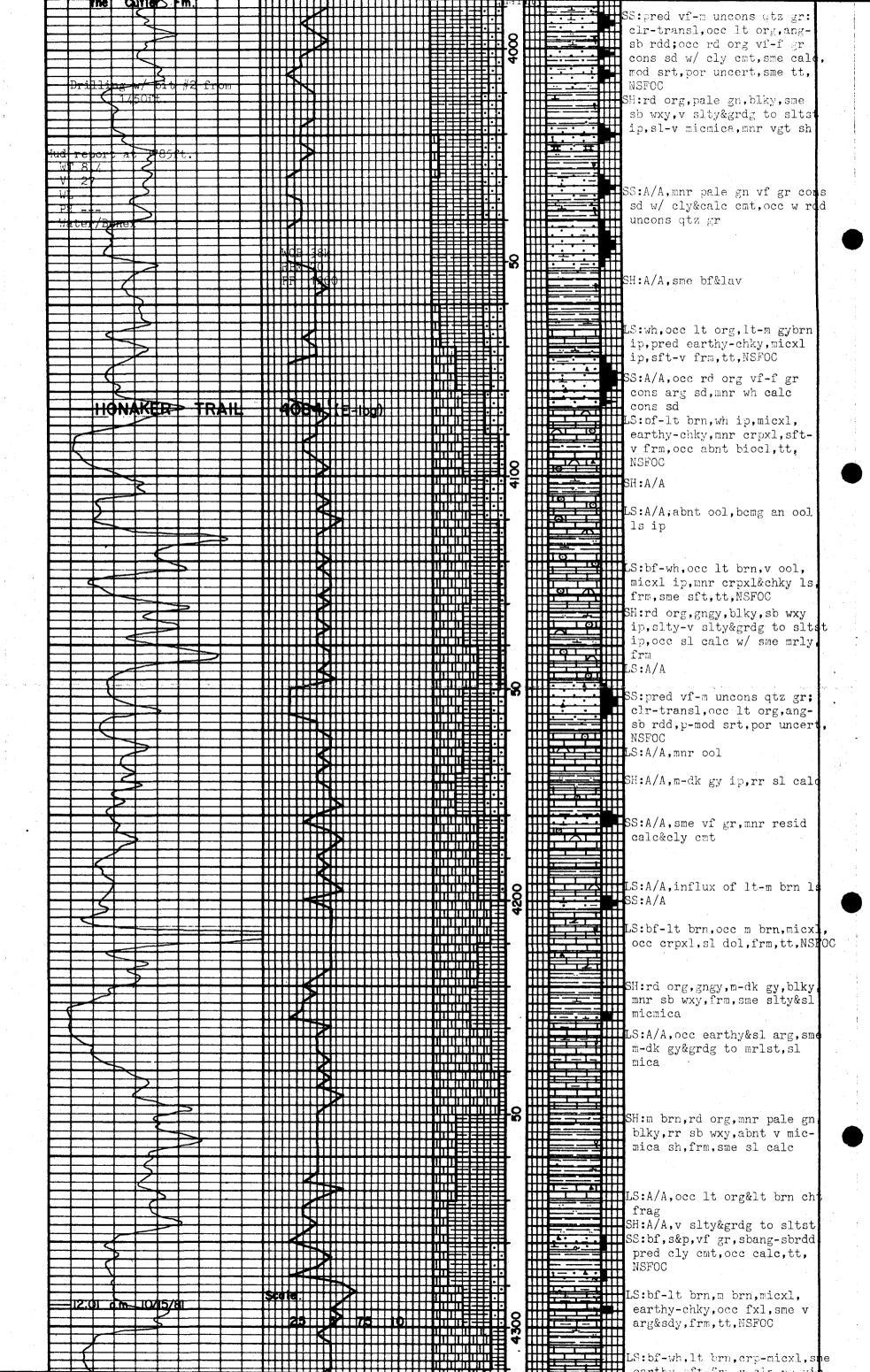
% Lithology

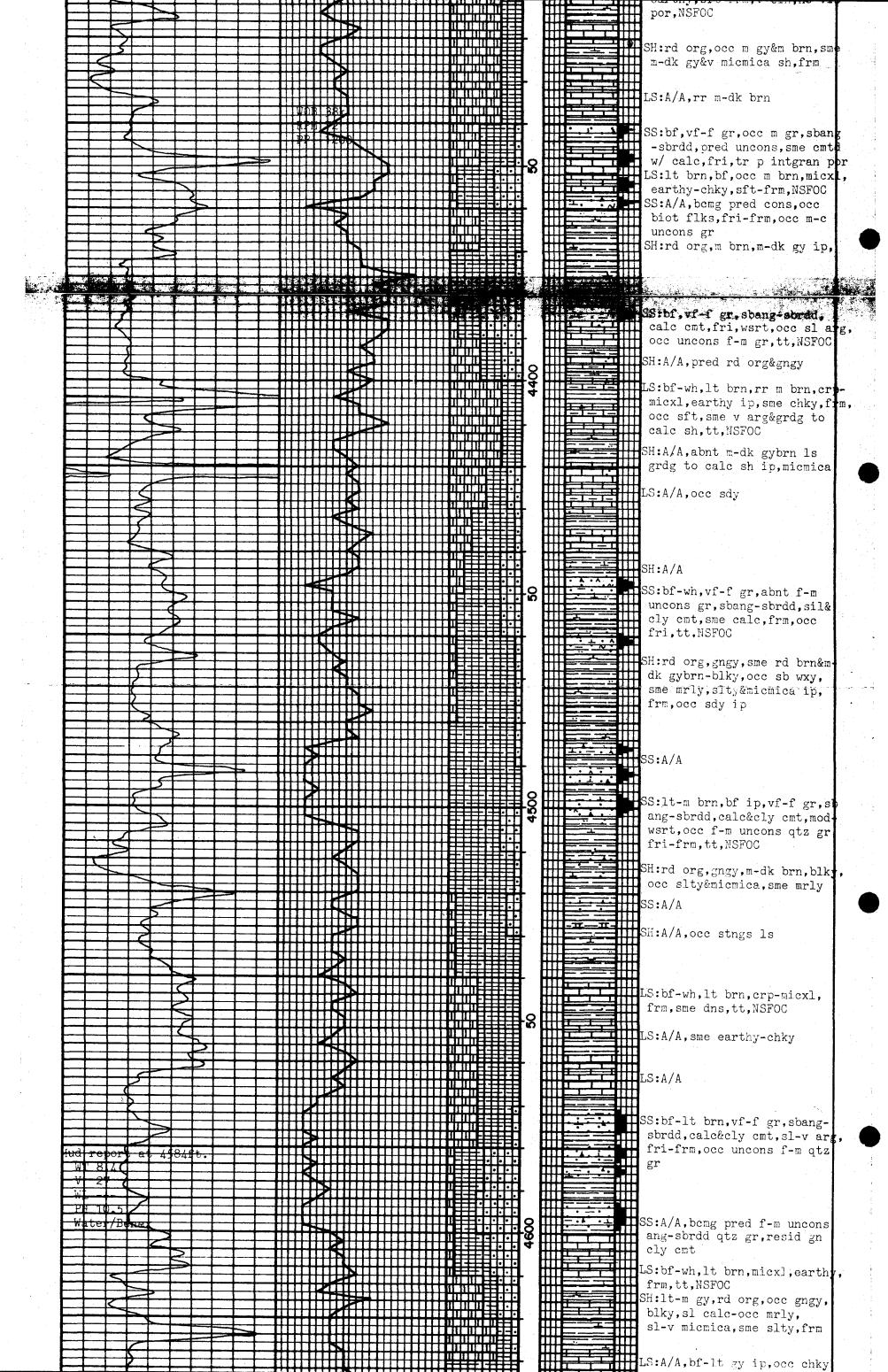
Porosity

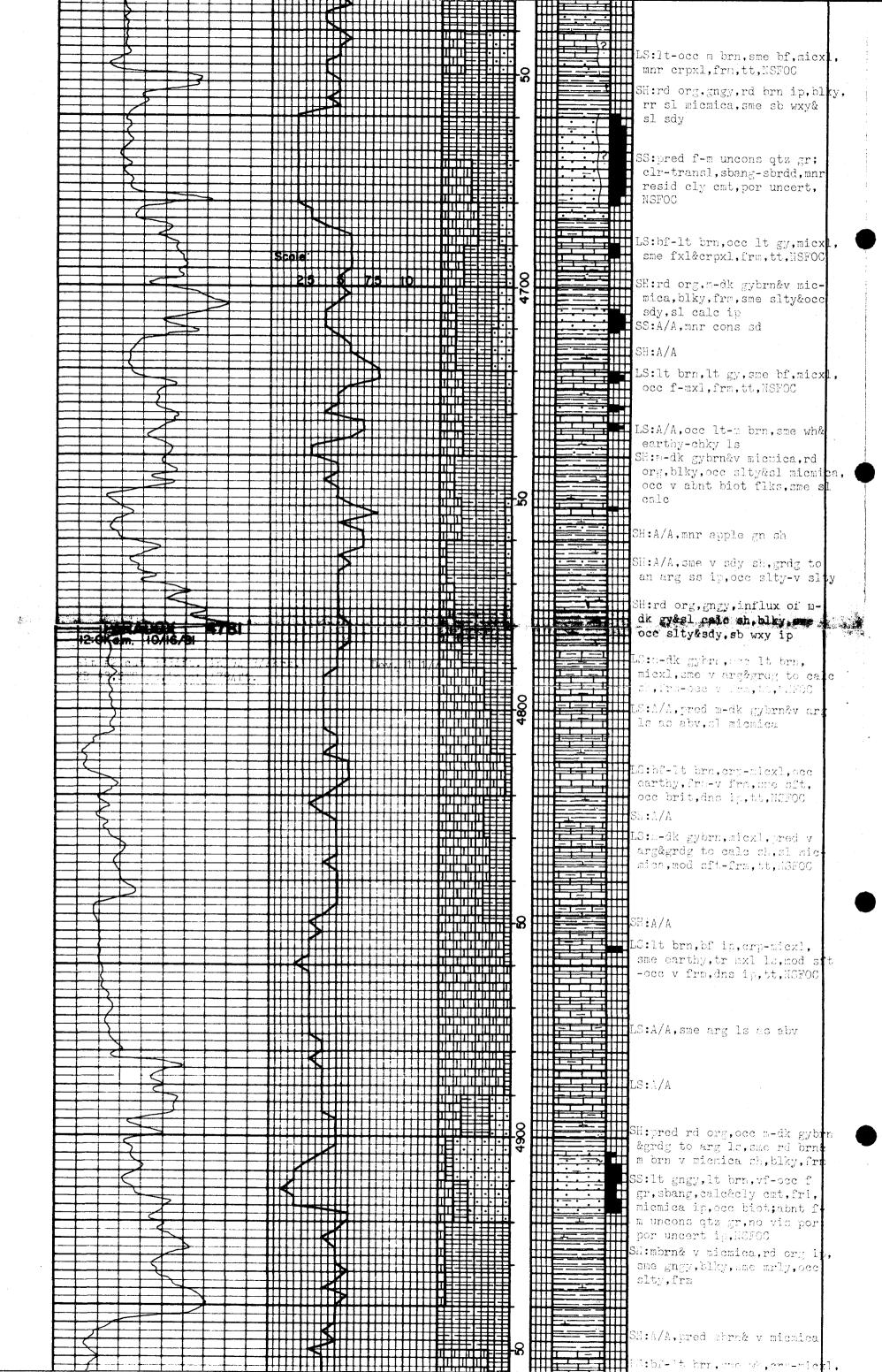
Drilling Rate (Min/Ft)

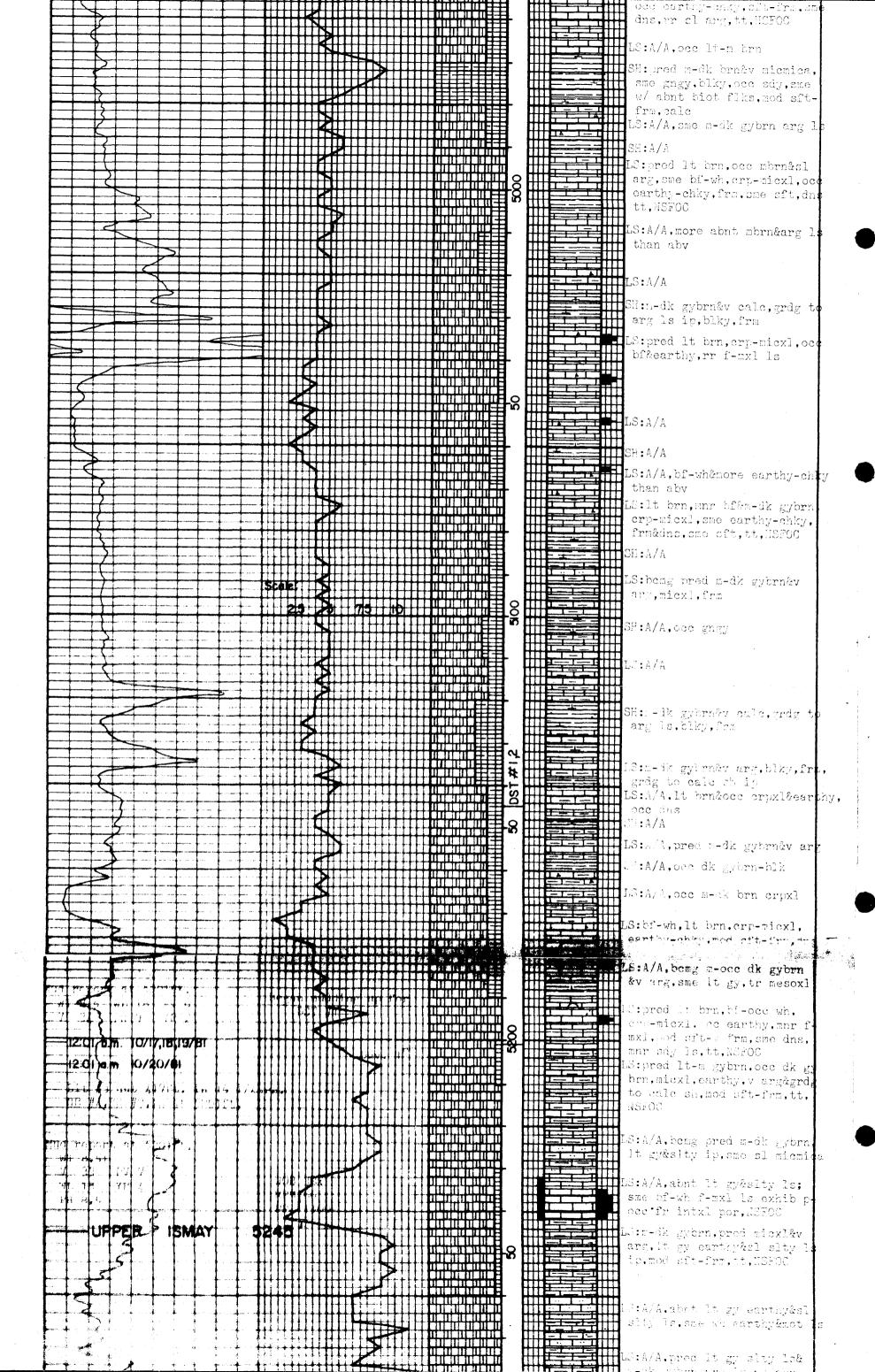
Scale: Min./2Ft.

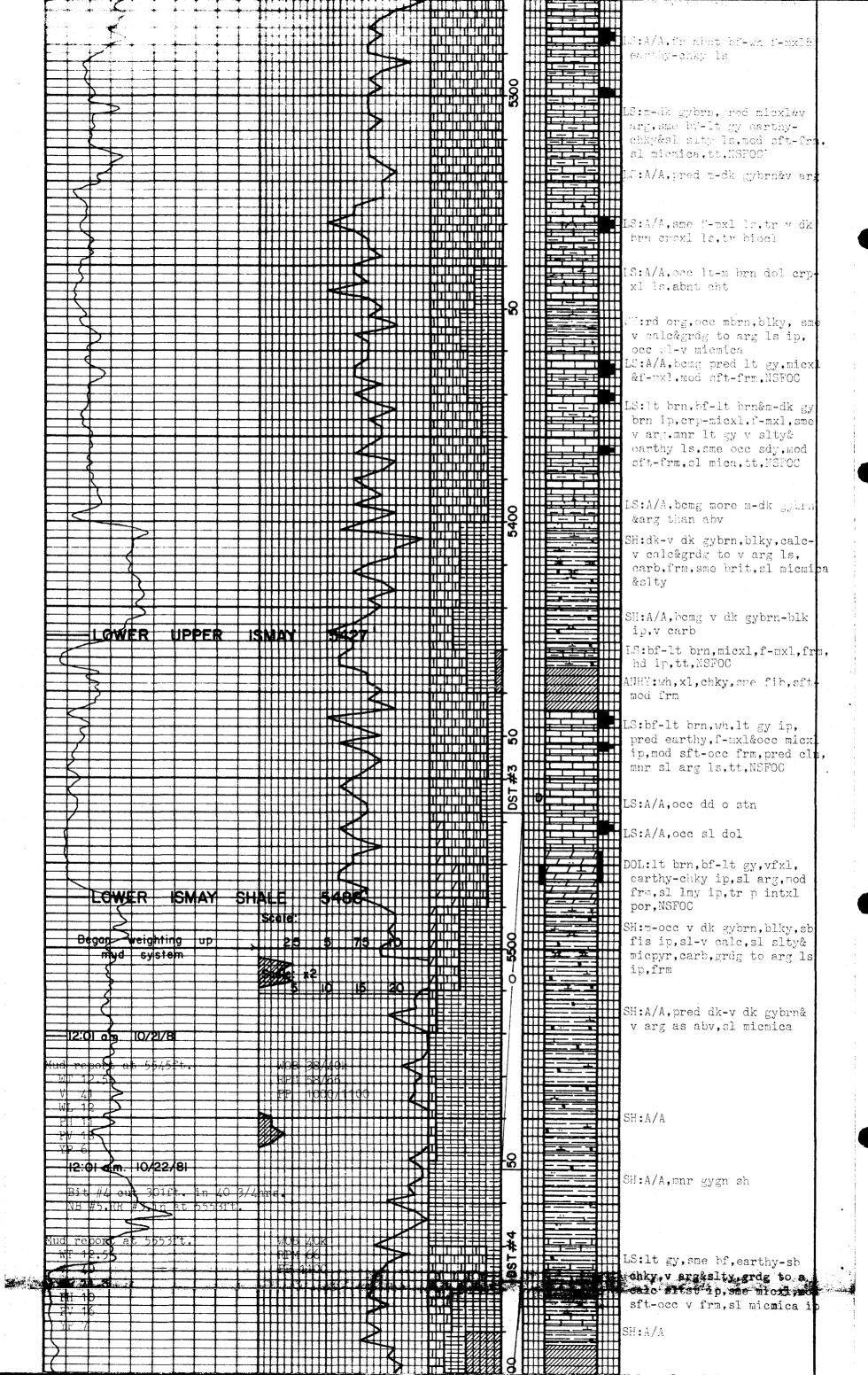
Drilling Fluid:

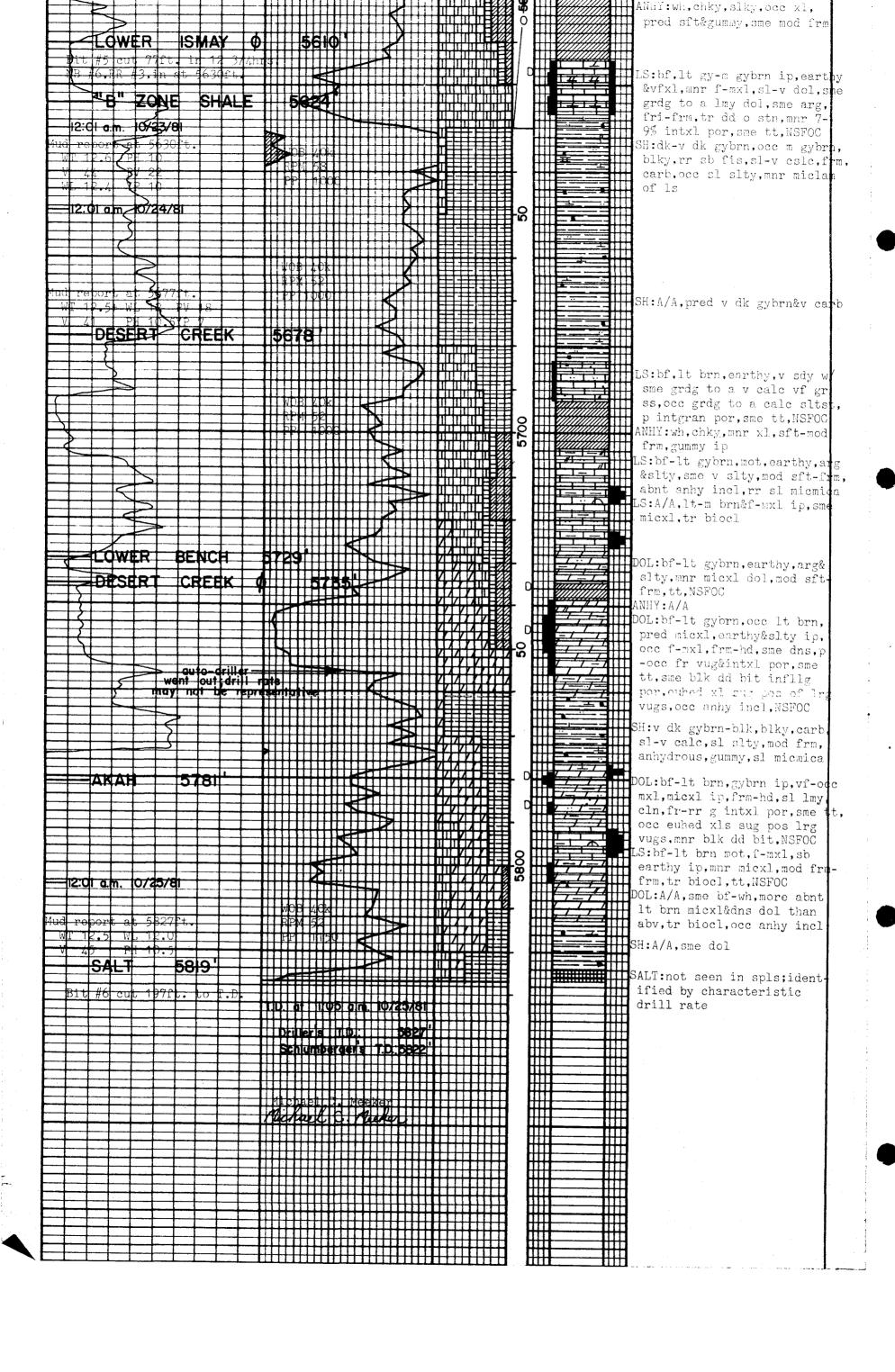












DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY	U-45927 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
SUNDRY NOTICES AND REPORTS ON WELLS (Do not use this form for proposals to drill or to deepen or plug back to a different reservoir, Use Form 9–331–C for such proposals.)	7. UNIT AGREEMENT NAME : 210 , 59
1. oil gas other	8. FARM OR LEASE NAME THE SOLD
2. NAME OF OPERATOR	o g garage
Wexpro Company	10 FIELD OF WILDON'T NAMED NO
3. ADDRESS OF OPERATOR	Undesignated of The Trans
P. O. Box 1129, Rock Springs, Wyoming 82901 4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)	11. SEC., T., R., M. OR BLK. AND SURVEY OR AREA 25 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
AT SURFACE: NE NE 497' FNL, 870' FEL	12. COUNTY OR PARISH 13. STATE & 5
AT TOP PROD. INTERVAL:	San Juan 2 5 5 Utah
AT TOTAL DEPTH:	14. API NO. STATE IN TO THE PROPERTY OF THE PR
16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE,	43-037-30604
REPORT, OR OTHER DATA	15. ELEVATIONS (SHOW DF, KDB, AND WD)
DECUEST FOR APPROVED TO	GR 6032' as graded 2855
REQUEST FOR APPROVAL TO: SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	nd reports any state any state copies to copies to build be duling the copies to such space of the copies to the copies the copies to the copies to the copies to the copies the co
SHOOT OR ACIDIZE	of model
REPAIR WELL	(NOTE: Report results of multiple completion by the change on Form 9-330.) of the change on Form 9-310 by the change of the chan
PULL OR ALTER CASING	change on Form 9-330.)
MULTIPLE COMPLETE	ob one
CHANGE ZONES	change on the death of the deat
ABANDON*	olfourth
(other) "As graded" elevation change - see #15	emontournten oitstago Haw edgapos to b dmun ant beriistde not beriistde not noibn to not beriistde not beriistde not beriistde not beriist then o otab then b beriten be b ant bns b
17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly states including estimated date of starting any proposed work. If well is dismeasured and true vertical depths for all markers and zones pertinent	all pertinent details, and give pertinent dates, rectionally drilled, give subsurface locations and
The same same services and same services bettilled	t to this work.)*
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Subsurface Safety Valve: Manu. and Type		** () **	Theon s well and the special s	the control of the colons of t	ų,
18. I hereby certify that the foregoing is t		DATE	otale to aba	epb zi mnot lqqs of the qz ynseso ntie ,zego s on enseso s on enseso en	_
APPROVED BY	(This space for Federal or State office use) TITLE	DATE _	them IX: Prop light such a suc	General: This ladien lands pursu regulations. Any n little little land procedures and procedures of the lating lati	-

Form 9-331 Dec. 1973

Form Approved. Budget Bureau No. 42-R1424

UNITED STATES	5. LEASE
DEPARTMENT OF THE INTERIOR	U - 45927
GEOLOGICAL SURVEY	6. IF INDIAN, ALLOTTEE OR TRIBE NAME
SUNDRY NOTICES AND REPORTS ON WELLS (Do not use this form for proposals to drill or to deepen or plug back to a different	7. UNIT AGREEMENT NAME
reservoir. Use Form 9–331–C for such proposals.)	O. TARM ON LEASE WANTE
1. oil gas other	Bug ("") 9. WELL NO.
2. NAME OF OPERATOR	9. WELL NO.
Wexpro Company	10. FIELD OR WILDCAT NAME
3. ADDRESS OF OPERATOR P. O. Boy 1120 Pook Springs Hyaming 22001	Bug
P. O. Box 1129, Rock Springs, Wyoming 82901 4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
below.)	18-36S-26E., SLB&M
AT SURFACE: NE NE 497' FNL 870' FEL	12. COUNTY OR PARISH 13. STATE
AT TOP PROD. INTERVAL: AT TOTAL DEPTH:	San Juan Utah
	14. API NO.
16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA	43-037-30604
REPORT, OR OTHER DATA	15. ELEVATIONS (SHOW DF, KDB, AND WD)
REQUEST FOR APPROVAL TO: SUBSEQUENT REPORT OF:	KB 6046.20' GR 6032'
TEST WATER SHUT-OFF	
FRACTURE TREAT	
SHOOT OR ACIDIZE	
PULL OR ALTER CASING	(NOTE: Report results of multiple completion or zone change on Form 9–330.)
MULTIPLE COMPLETE	
CHANGE ZONES	
(other) Supplementary History X	
17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state including estimated date of starting any proposed work. If well is d measured and true vertical depths for all markers and zones pertinent	e all pertinent details, and give pertinent dates, irectionally drilled, give subsurface locations and t to this work.)*
TD 5827', rig released October 26, 1981 at 4:00	p.m., WOCT.
Spudded October 9, 1981 at 3:00 a.m., landed 9-	-5/8", 36#, K-55, 8rd thd, ST&C
casing at 1419.70' KBM, set with 475 sacks class	ss G cement with 2% calcium choride
and 300 sacks class G with 3% calcium chloride.	cement in place 10-11-81.
DST #1: 5145-5202', Paradox, mis-run, tool plu DST #2: 5145-5202', Paradox, IO ½ hr, ISI 1 hr	igged.
on both openings, no gas, recovered 270' mud, 1	THE 2226 TOPP'S O2. 120 TOTE 275
FOFP's 402-429, FSIP 1201, FHP 2336.	in 2550, 10FF 8 95-120, 15FF 5/5,
DST #3: 5468-5550', Lower Upper Ismay, IO 20 m	ins ISI 1 hr FO 1 hr FSI 2 hrs
opened weak on both openings, no gas, recovered	
ISIP 149, FOFP's 81-95, FSIP 149, FHP3560.	. 70 maa, 1111 3300, 1011 3 41 34,
DST #4: 5578-5631', Lower Upper Ismay, 10 ½ hr	ISI 1 hr. FO 1% hrs. FSI 3 hrs.
opened weak, no gas, reopened, gas not enough to THP 3624, IOFP's 53-161, ISIP 429, FOFP's 107-1 Subsurface Safety Valve: Manu. and Type	co gauge, recovered 400' gas cut mud 161, FSIP 2124, FHP 3628.
18. I hereby certify that the foregoing is true and correct	
SIGNED THE ASST Dr1g Sup	ot DATE 10-27-81
(This space for Federal or State off	ce use)

DATE

UNITED STATES

	Form Approved.
	Budget Bureau No. 42–R1424
۱	5. LEASE
١	U - 45927
Ì	6. IF INDIAN, ALLOTTEE OR TRIBE NAME
1	7 HART ACRESIA HART
1	7. UNIT AGREEMENT NAME
:]	
_	8. FARM OR LEASE NAME
	Bug
	9. WELL NO.
_	9
	10. FIELD OR WILDCAT NAME
-	· · · · · · · · · · · · · · · · · · ·
	Bug
	11. SEC., T., R., M., OR BLK. AND SURVEY OR
	AREA
	18-36S-26E., SLB&M
	12. COUNTY OR PARISH 13. STATE
	San Juan Utah
_	14. API NO.
ĺ	43-037-30604
1	15. ELEVATIONS (SHOW DF, KDB, AND WD)
Ì	KB 6046.20' GR 6032'
ı	105 0040:20 GR 0032
1	
	Note: Report results of multiple completion or zone
	(change on Form 9-330.)
1	⁷ 982
1	983 11 (1)
L	`
Ģ٢	all pertinent details, and give pertinent dates, pectionally drilled, give subsurface locations and to this work.)*
01	n 11-19-81, perforated
	ased rig on 11-20-81.
- (aseu 11g on 11-20-01.
á	at 5820.05' KBM, set with

DEPARTMENT OF THE INTERIOR	<u>U - 45927</u>
GEOLOGICAL SURVEY	6. IF INDIAN, ALLOTTEE OR TRIBE NAME
SUNDRY NOTICES AND REPORTS ON WELLS (Do not use this form for proposals to drill or to deepen or plug back to a different	7. UNIT AGREEMENT NAME
reservoir. Use Form 9–331–C for such proposals.)	8. FARM OR LEASE NAME
1. oil gas well other	9. WELL NO.
2. NAME OF OPERATOR	9
Wexpro Company 3. ADDRESS OF OPERATOR	10. FIELD OR WILDCAT NAME
P. O. Box 1129, Rock Springs, Wyoming 82901	Bug 11. SEC., T., R., M., OR BLK. AND SURVEY OR
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.) AT SURFACE: NE NE 497' FNL 870' FEL AT TOP PROD. INTERVAL: AT TOTAL DEPTH:	18–36S–26E., SLB&M 12. COUNTY OR PARISH San Juan Utah
16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA	14. API NO. 43-037-30604 15. ELEVATIONS (SHOW DF, KDB, AND WD)
REQUEST FOR APPROVAL TO: SUBSEQUENT REPORT OF	KB 6046.20' GR 6032'
TEST WATER SHUT-OFF	Report results of multiple completion or zone change on Form 9–330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly sta including estimated date of starting any proposed work. If well is measured and true vertical depths for all markers and zones pertine

TD 5827', PBD 5777', rigged up work over unit with 2 holes per foot from 5734' to 5748', rele

Landed 5-1/2", 17#, K-55, 8rd thd, LT&C casing 850 sacks 50-50 Pozmix treated with 2% gel, floating equipment held OK, cement in place at 5:30 p.m. on 10-26-81, landed 2-7/8" tubing at 5626.39.

At end of test well was making 920 barrels of oil and 1374 Mcf of gas per day through 16/64" choke, FTP 1750, CP 1825, no water. Final report.

Subsurface Safety Valve: Manu. and Type	Set @ Ft.
18. I hereby certify that the foregoing is true and correct	
SIGNED PAR D TOUTHER TITLE DELS SUPE.	DATE 1-6-82
(This space for Federal or Sta	te office use)
APPROVED BY TITLE CONDITIONS OF APPROVAL, IF ANY:	DATE

UNTED STATES SUBMIT DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

SUBMIT IN DUPL (See other instructions on reverse side)

Form approved. Budget Bureau No. 42–R355.5.

tions on se side)	5.	LEASE	DESIGNATION	AND	SERIAL	NO.
	1					

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ч.	TF	INDIAN	ATTOTTE	ΩÞ	MDIDE	307 A	ME

WELL CO	MPLETION	I OR	RECO	MPLETI	ON F	REPOR'	1A T	1D LOG	k 0. 1.	INDIAN,	ALLOILE	E OR TRIBE NAME
1a. TYPE OF WEL	L: OH	LL X	GAS WELL	n.p.	v 🗌	Other			7. U	NIT AGREE	MENT N	AME
b. TYPE OF COM			. EDD 2	DK	1 —	Other						
NEW X		EP-	PLUG BACK	DIFF.	. 🗆	Other			8. F	ARM OR LI	EASE NA	ME
2. NAME OF OPERAT										ug		
Wexpro C	ompany			•				4-1		ELL NO.		
3. ADDRESS OF OPER								- 			9	
P. O. Bo	x 1129.	Rocl	k Spri	ngs. Wy	omine	82901			10. F	TIELD AND	POOL, C	R WILDCAT
P. O. BO:	LL (Report locat	ion clear	ly and in	accordance	with an	y State re	uireme	nts) *		me Un	de	AOCK AND SURVEY
At surface	NE NE	497 ']	FNL.	870' FE	L.				11.	SEC., T., R.,	M., OR 1	LOCK AND SURVEY
At top prod. into					_					OR AREA		4
	•		ļ					i i	1	8-36S-	-26E.	, SLB&M
At total depth												
				14. PER				ISSUED	12. 0	COUNTY OR		13. STATE
API #: 4	3-037-3060)4		43-0	37-3			-15-80		an Jua		Utah
15. DATE SPUDDED			1			o prod.)		EVATIONS (DF, I			19. ELE	v. CASINGHEAD
10-9-81	10-25-	-81	1	2-30-81			KB 6	046.20				-
20. TOTAL DEPTH, MD	& TVD 21. PL		_ ;	TVD 22.	HOW M	TIPLE COM ANY*	PL.,	23. INTER	1 PX	ARY TOOLS		CABLE TOOLS
5827		5777						1 / 2	(CP)_0	- 5827		
24. PRODUCING INTER	(VAL(S), OF THIS	COMPLE	TION-TO	P, BOTTOM, I	NAME (E	AD AND TV	D) *	18136	G(C)	8 .	25. v	VAS DIRECTIONAL URVEY MADE
	E701 E	7/01			٠.		1			Proc		27
26. TYPE ELECTRIC A	5734 - 57		Dese	rt Cree	K				<u>, </u>			No
DIL, C		KUN	į	•				9	44 ,		A C WAS	WELL CORED
	NL/ LDC)		A 10
CASING SIZE	WEIGHT, LB.	/FT.	DEFTH SI	ING RECOR		ort all stri LE SIZE	ngs set	infoett)	ONG RECORD	<i>202</i>		
9-5/8	36		1,41			2-1/4	_	77640	270// -	<u> </u>		0
5-1/2	$-\frac{30}{17}$		5,82			3-3/4		850	CAN CA			0
			J, 02	0.02		3 3/4			& MININ	<u> </u>	-	
									.,,,,			
29.	· · · · · · · · · · · · · · · · · · ·	LINER	RECORD	<u>.</u>			' -	30.	TUBIN	G RECOR	D L	
SIZE	TOP (MD)	вотто	M (MD)	SACES CEN	MENT*	SCREEN	(MD)	SIZE		SET (MP)		CKER SET (MD)
				·				2-7/8	5,62	6.39	- -	
31. PERFORATION REC	ORD (Interval, s	ize and	number)			32.	A	CID, SHOT, FI	RACTURE, (CEMENT	SQUEEZ	E, ETC.
						DEPTH		AL (MD)				ERIAL USED
5734-5748	', jet, 2	hole	s per	foot								
			_							 		
33.* DATE FIRST PRODUCTI	ION I PROP	Ticomresi	· · · · · · · · · · · · · · · · · · ·	m		OUCTION	<u>-</u>					
•	PROL	OCTION	METHOD (imping—-81	ze and	type of pump)		WELL ST 8hut-i	n	Producing or
12-29-81	HOURS TESTED	Low	OKE SIZE	Flowi								hut in
2/29-30/81	12	1	6/64	PROD'N. TEST P		OIL—BB	٠.	GAS-MCF.	WAT	ER—BBL.	Į.	FOIL RATIO
FLOW. TUBING PRESS.	CASING PRESSU		LCULATED	OIL—BI			-MCF.	<u> </u>				1493:1
1750	1825	24	HOUR RAT	E	20	GAS			TER-BBL.	ľ	IL GRAV	ITY-API (CORR.)
34. DISPOSITION OF GA	·	r fuel. ve	ented, etc.)		۷		1,37		0	WITNESSI	שמ תפ	
	ile testi		,,						TEST	*****************************	DI	
35. LIST OF ATTACHM		-6		···								
Logs as a	bove							*:				
36. I hereby certify		ng and a	attached in	nformation	is compl	lete and co	rrect a	s determined f	rom all ava	ilable rec	ords	
7		1. 1	1 20					* .				_
signed	SIGNED MILE Director, Petroleum Engrg DATE Jan. 6, 1982											

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions. General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency

Consult local State 11 there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. should be listed on this form, see item 35. or Federal office for specific instructions.

Hems 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 24 and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, Hem 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

		TRUE VERT. DEPTH					
GEOLOGIC MARKERS	TOP	MEAS. DEPTH TRU		0, 2,356 3,996	4,780	5,622 5,677 5,819'	
38. GEOLOG		NAME	Log tops:	Morrison Cutler Honaker Trail	Paradox Lower Upper Ismay	B Zone Desert Creek Salt	
MARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF POROSITI AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES	DESCRIPTION, CONTENTS, ETC.						
ROSITY AND CONTENT USED, TIME TOOL OP	BOTTOM					4 - 1 - 4 - 1 - 4 - 1 - 1 - 1	
RIANT ZONES: TESTED, CUSHION	TOP						
37. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF DEPTH INTERVAL TESTED, CUSH	FORMATION						



Scott M. Matheson, Governor Temple A. Reynolds, Executive Director Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

January 15, 1982

Wexpro Company
P. O. Box 1129
Rock Springs, Wyoming 82901

Re: Well No. Bug #9

Sec. 18, T. 36S, R. 26E San Juan County, Utah

Gentlemen:

This letter is to advise you that the Well Completion or Recompletion Report and Log for the above mentioned well is due and has not been filed with this office as required by our rules and regulations.

Please complete the enclosed Form OGC-3, in duplicate, and also all drilling information on this well is needed to be forwarded to this office as soon as possible.

Thank you for your cooperation relative to the above.

Very truly yours,

DIVISION OF OIL, GAS AND MINING.

Cari Furse Clerk Typist

Well: Bug #9	Date:July 14, 1982
Aren: Bug Field	Lease No: <u>U-45927</u>
// New Field Wildcat / \overline{X} / Devel	opment Well /_/ Shallower Pool Test
/_/ New Pool Wildcat /_/ Exten	sion /_/ Deeper Pool Test
Location: 497 feet from North line,	870 feet from East line, NE 1/4 NE 1/4
Section 18, Township	36 South, Range 26 East
County: San Juan	State: Utah
Operator: Wexpro	
Elevation: KB 6046.2' GR 6032' Total De	epth: Driller5827' Log5822'
Drilling Commenced: October 9, 1981	Drilling Completed: October 25, 1981
Rig Released: October 26, 1981	Well Completed: December 30, 1981
Sample Tops: (unadjusted)	Log Tops:
Honaker Trail 4085' Paradox 4780' Upper Ismay 5251' Lower Upper Ismay 5434' Lower Ismay Shale 5490'	Morrison Surface Cutler 2356' Honaker Trail 3996' Paradox 4780' Lower Upper Ismay 5425' "B" Zone 5622' Desert Creek 5677' Akah 5781' Salt 5819'

Sample Cuttings:

10' samples 3800-5728' 1 dry to SLC 1 wet cut to Amstrat-Denver

Shut-In Oil Well Status:

Producing Formation: Desert Creek

Perforations: 5734-5748

None Stimulation:

Production: 920 BOPD, 1374 MCFD, 0 BWPD

Plug Back Depth: 57771

Plugs: None

12-1/4" Surface-1450' Hole Size:

8-3/4" 1450-5827'

9-5/8", 36# @ 1419', 5-1/2", 17# @ 5820', 2-3/8" @ 5626' Casing/Tubing:

3800-58281 Logging - Mud: Smith Mud Logging

Schlumberger 1394-5816' Mechanical:

Arapahoe Drilling Company Rig #4 Contractor:

Roger W. Fallon Completion Report Prepared by:

API #43-037-30604

Well location was re-surveyed by company survey party, Elevation correction of -4 feet was made in elevation. GR 6032' not 6036' as reported on original loc. plat

AUG 17 1982

DIVISION OF

OIL, GAS & MINING

COMPLETION REPORT (cont.)

Well: Bug #9

Area: Bug Field

Cored Intervals (recovery): No Cores

Tabulation of Drill Stem Tests:

<u>No.</u>	<u>Interval</u> 5145-5202'	IHP	IFP (min.)	<pre>ISIP (min.)</pre>	FFP (min.)	FSIP (min.)	FHP	Samples Caught	Remarks
2		2331	100-123 (30)	1243 (60)			2303	Mud	Misrun - tool plugged NGTS, rec 270' mud, tools didn't open
3 4	5468-5552' 5578-5630'	3569 3672'	37-55 (20) 71-190 (24)	151 (60) 473 (62)	81-89 (60) 130-199(91)	148 (120) 2163 (178)		Gas, mud	for final flow NGTS, rec 90' mud GTS, NETG, rec 400' GCM

Form 3160-5 (November 1983 (Formerly 9-33)	i) DEPAR	UNITED STATE TMENT OF THE	INTERI	· · · · · · · · · · · · · · · · · · ·	5. LEAS	pires August	
	BUR	EAU OF ND MANA	GEMEN			45927	OR TRIBE NAME
(Do not t	SUNDRY NO age this form for pro Use "APPL	OTICES AND REP OF PROPERTY OF THE PROPERTY OF	ORTS Con or plug by for such pr	ON WELLS ack to a different reservoir. oposals.)		0929	
1. OIL	GAS [7. UNIT	AGREEMENT NA	ME
WELL XX	WELL OTHER		<u> </u>		8. FAR	OR LEASE NAM	r
Wexpro (Company				Bus	3	
3. ADDRESS OF O	PERATOR			The second secon	8. WEL	L NO.	
P. O. Bo	ox 458, Rock	Springs, Wyoming or clearly and in accordance	g 82902	State requirements.	9 10. FIE	LD AND POOL, OR	WILDCAT
See also space At surface				•	l _	sert Creek	
NE NE,	97' FNL, 870	FEL			11. 3EC	URVEY OR ARMA	
						360 36E	OT DCM
14. PERMIT NO.		15. ELEVATIONS (Show	whether DF	, RT, GR. etc.)		-26S-26E,	
43-037-3	30604	GR 6032'			San	n Juan	Utah
16.	Check	Appropriate Box To I	ndicate N	lature of Notice, Report	, or Other Do	ata	
	NOTICE OF IN	TENTION TO:		j	UBSEQUENT REP	ORT OF:	
TEST WATER	SHUT-OFF	PULL OR ALTER CASING		WATER SHUT-OFF		REPAIRING W	TELL
FRACTURE TE	REAT	MULTIPLE COMPLETE		FRACTUBE TREATMENT		ALTERING CA	SING
SHOOT OR AC	!	ABANDON* CHANGE PLANS		SHOOTING OR ACIDIZING (Other) Well S	hut-in St	ABANDONMEN Atus	T*
(Other)	·	(1111 112 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2		(NOTE: Report Completion or R	results of multi	pie completion o	n Well
17. DESCRIBE PROP proposed w nent to this	vork. If well is dire	OPERATIONS (Clearly state ectionally drilled, give subs	all pertinen urface locat	t details, and give pertinent tions and measured and true	dates, including	estimated date	of starting any
50 MCFPI to conti as oil p shut-in to the v	o and 600 BWI inue to produ prices increa The Wexprowell until of	PD. When oil proce. The well wased. To date, to Company reques increa	ices de as shut the wel ts that se to t	1981-1986. The clined in 1986, t-in and has been 1 is still unecon a "Long Term" she point that the additional inform	he well be reviewed pomic to pomic to pomic to pomic to pomic to pomic to an extension of the pomic to the po	ecame uned periodical roduce and tus be giv be produc	conomic .ly ! is ven ced
						See Son Son	e Frank V Property
		**				SEP	2 5 1987
						OIVISI GAS	ON OT CIL
		•					
			2				
18. I hereby cort	ly that the foresom	g is true and correct					
SIGNED	ben O	to museum TI	TLES	taff Engineer	D	ATE 9/23	/87
(This space f	or Federal or State	office use)					
APPROVED	BY		TLE		D	ATE	

(November 1983) (Formerly 9–331)		ATES HE INTERIOR	(Other instructions verse side)	Te 5. LEASE DESIGNATION	
SUND (Do not use this fo	BUREAU OF LAND A RY NOTICES AND The for proposale to drill or to	REPORTS D	MIBIWE	6. IF INDIAN, ALLOT	THE OR TRIBE NAME
OIL X GAS WELL WELL	other	AIT—" for such it to	SEP 29 1988	7. UNIT AGREEMENT	RAME
2. NAME OF OPERATOR. Wexpro Company 3. ADDRESS OF OPERATOR.			DIVISION OF OIL, GAS & MINING	8. FARM OR LEASE N Bug 9. WELL NO.	AME
	Rock Springs, Wyon ort location clearly and in acco		te requirements.*	9 10. FIELD AND POOL	_
NE NE, 497' FN	870' FEL		•	Desert Cree	R BLE. AND
14. PERMIT NO. 43-037-30 604	15 ELEVATIONS GR 603	(Show whether DF, RT,	GR. etc.)	18-36S-26E, 12. COUNTY OR PART San Juan	
16.	Check Appropriate Box	To Indicate Nati	re of Notice, Report,	or Other Data	
No	CICE OF INTENTION TO:	· 10		BSEQUENT REPORT OF:	
TEST WATER SHUT-OFF FRACTURE TREAT SHOOT OR ACIDIZE REPAIR WELL (Other) 17. DESCRIBE PROPOSED OR C Proposed work. If y	PULL OR ALTER COMPLETED OPERATIONS (Clearly ell is directionally drilled, give	State all pertinent de	(NOTE: Report re Completion or Re	hut-in Status esults of multiple completio completion Report and Log	CASING (ENT* X n on Well form.)
MCFPD and 600 continue to pr prices increas The Wexpro Company anticipated in	ioned well was probable. When oil produce. The well well well. To date, the pany requests that has proposed plug time to perform the when plugging plan lease advise.	ices declined as shut-in an well is still a "Long Terr ging said wel he plugging o	I in 1986, the wand has been reviolation to uneconomic to "shut-in statu" to the partne during 1988. No	ell became uneconewed periodically produce and is slub she given to the	nomic to y as oil nut-in. e well. re not t upon
18. I hereby certify that the	e foregoing is true and correct		rict Manager	DATE 9/2	7/88
(This space for Federa	of State office use)		••		
APPROVED BYCONDITIONS OF APP	ROVAL, IF ANY:	TITLE		DATE	****

Form approved.

Ferm 3100-5 (November 1983) (Formerly 9-331)

OF THE INTERIOR Verse side) DEPARTMEN BUREAU OF LAND MANAGEMENT

Form approved.
Budget Burgan No. Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

1	U-4	15	927
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CHAIDDY MOTICES AND DEDODTS ON WELLS

•	(Do not use this form	n for proposals to drill or to deepen or plug e "APPLICATION FOR PERMIT—" for such	g back to a different reservoir. proposals.)	
1.	OIL X GAS WELL	OTHER	MECENVE	UNIT AGREEMENT NAME
2.	NAME OF OPERATOR Wexpro Company		ME GOOD IS	ARM OR LEAST NAME
3.	ADDRESS OF OPERATOR	Rock Springs, Wyoming 82	902 OCT 13 1988	8. WBLL NO.
4.	LOCATION OF WELL (Repor See also space 17 below.) At surface	rt location clearly and to accordance with at	OIL, GAS & MINING	10. FIELD AND POOL, OR WILDCAT Desert Creek 11. SEC., T., E., M., OR BLE, AND
•	NE NE, 497' FNL	, 870' FEL		18-36S-26E, SLB&M
j 4	. PERMIT NO.	15 ELEVATIONS (Show whether	DF, RT, GR. etc.)	12: COUNTY OR PARISH 13. STATE
	43-037-30604	GR 6032'		San Juan Utah
16.		Check Appropriate Box To Indicate	Nature of Notice, Report, or O	ther Data
	NOTIC	CE OF INTENTION TO:	SUBSEQU	ENT REPORT OF:
	TEST WATER SHUT-OFF FRACTURE TREAT	PULL OR ALTER CASING MULTIPLE COMPLETE ABANDON® X	WATER SHUT-OFF FRACTURE TREATMENT	REPAIRING WELL ALTERING CASING
	REPAIR WELL	ABANDON* X CHANGE PLANS		of multiple completion on Well
17	(Other) DESCRIBE PROPOSED OR CON proposed work. If well nent to this work.)*	MPLETED OPERATIONS (Clearly state all pertin il is directionally drilled, give subsurface lo	ent details, and give pertinent dates.	tion Report and Log form.) including estimated date of starting and depths for all markers and zones perti
		proposes to plug and aband	on the above captioned	well as follows:
	1153 c	he well with ll.4 ppg Calc corrosion inhibitor needs to gallons per 100 barrels).	o be mixed into the Cal	
	2. Set a	cast iron bridge plug at 5	720 feet KBM and pressu	re test to 1500 psi.
	3. Set a	100 foot cement plug on to	p of the bridge plug.	
	4. Perfora	rate the 5-1/2-inch casing	at 1470 feet KBM.	
		cement retainer at 1370 feinch annulus.	eet. Circulate cement u	up the $5-1/2$ -inch x
	6. Remove	wellhead and casing head.	Cut off casing at gro	ound level.
	7. Set a	50 foot cement plug at sur	face and install a regu	lation dry hole marker.
	8. Reclai Manage	m location according to st	cipulations provided by	the Bureau of Land

18. I hereby certify that the foregoing is true and correct 10/7/88 District Manager SIGNED TITLE DATE _ (This space for Federal or State office use)

APPROVED BY _____CONDITIONS OF APPROVAL, IF ANY:

TITLE

OF UTAH DIVISION OF

OIL, GAS, AND MINING

Federal approval of this actier is required before commencing operations.

*See Instructions on Reverse SIGETE

Form 3160-5 (November 1983) (Formerly 9-331)	UNITED S EPARTMEN DF	TATES THE INTERIO	QUENT IN TRIER (Other instruction verse side)	8 Tre- 1	EARE DESIGNATION AND SERIAL PO
(Politicity 9-331)	BUREAU OF LAND				U-45927
	Y NOTICES AND for proposals to drill or "APPLICATION FOR PE				P INDIAN, ALLOTTEE OR TRIBE NAM
1.	- ATTECRITOR TORTE	10111- 101 01-0 91-9			NIT AGREEMENT NAME
01L [V] GAS [**************************************	1	
WELL A WELL	OTHER		THE PIE	A CUH WO?	ARM OR LEASE NAME
Wexpro Company	7		W R W LS L	IW V	Bug
3. ADDRESS OF OPERATOR				741	LL NO.
P. O. Box 458.	Rock Springs,	Wyomine 8290	200 DEC 29	1988	9
4. LOCATION OF WELL (Repor See also space 17 below.)	t location clearly and in a	cordance with any St	ate requirements.*	10.	FIELD AND POOL, OR WILDCAT
At Burrace		f	DIVIDIO		Desert Creek
NE NE, 497' FN	NL, O/U' FEL		OIL, GAS &	MIMAING	SEC., T., E., M., OR BLE. AND SURVEY OR AREA
					18-36S-26E, SLB&M
14. PERMIT NO.	į.	vs (Show whether Dr. R	T. CR. etc.)	12.	COUNTY OF PARISH 13. STATE
43-037-30604	GR 6	032	1. Jajok		San Juan Utah
16.	Check Appropriate Bo	x To Indicate Nat	ture of Notice, Rep	ort, or Other	Data
NOTIC	CE OF INTENTION TO:			SUBSEQUENT !	REPORT OF:
TEST WATER SHUT-OFF	PULL OR ALTER	CASING	WATER SHUT-OFF		REPAIRING WELL
PRACTURE TREAT	MULTIPLE COMP	1.ETE	PRACTURE TREATM	ENT	ALTERING CASING
SHOOT OR ACIDIZE	ABANDON*		SHOOTING OR ACID	IZING	ABANDONMENT* X
REPAIR WELL	CHANGE PLANS		(Other)		
(Other)			(Norz : Repo	ort results of mo	ultiple completion on Well Beport and Log form.)
The above refe	releted organious (Clear la directionally drilled, servenced well was the presence o	plugged on 1	2/18-20/88.	The well w	
 Set a cast Pressure t Spotted 1: Perforated 	ll with 11.5 ppg i iron bridge pl tested the bridg 5 sacks of cemen 1 at 1470' KBM went retainer at	ug at 5712' K e plug and ca t on the brid ith four hole	BM. sing to 1800 p ge plug.	osi for 15	minutes.
7. Circulated		ement to surf			y 5-1/2-inch annulus casing.
	langes and deadm		•	•	
10. Reclamation	on will occur wh	en possible.	÷		
		•			
			;	•	
	• • .		:		
					i.
	•				
18. I hereby certify that the	foregoing is true and corr	ect			
SIGNED HA	dogan	TITLEDis	trict Manager		DATE 12-23-88
(This space for Federal of	or State office use)			•	
		•		* 2	
APPROVED BYCONDITIONS OF APPRO	WAT, TH AWY-	TITLE			DATE
CONDITIONS OF MEIN				*	

MEMO TO WELL FILE

July 10, 1991

These wells are PA'd and have received a final abandonment notice from the BLM:

NAME/API		LO	CAT	ION				FAN DATE
Cherokee Fed 23-14 43-037-31392	Sec.	14	T.	37S	R.	23E		5-20-91
8807 JV-P Havasu #1 43-037-31435	Sec.	01	Т.	38\$	R.	23E		5-22-91
Dec Federal #1 43-037-31366	Sec.	10	T.	385	R.	24E		5-22-91
and the second s	Sec.	17	T.	385	R.	24E		5-22-91
Black Steer Fed 7-25 43-037-31461	Sec.	25	T.	385	R.	24E		5-22-91
Wexpro-9 43-037-30604	Sec.	18	T.	365	R.	26E	Ç	6-11-91
Muckleshoot Fed 15-32 43-037-31380	Sec.	15	т.	385	R.	25E		6-11-91